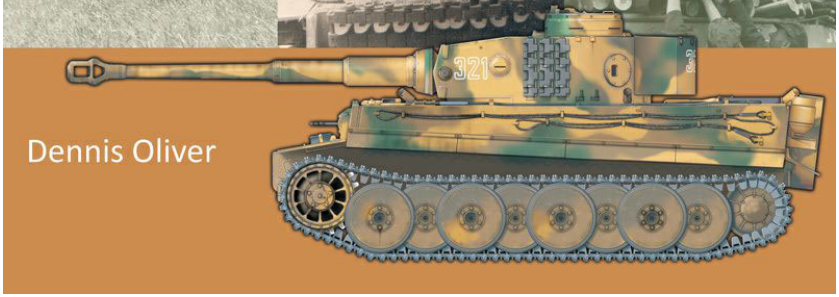
TIGER I

GERMAN ARMY HEAVY TANK

EASTERN FRONT, SUMMER 1943

TANK CRAFT



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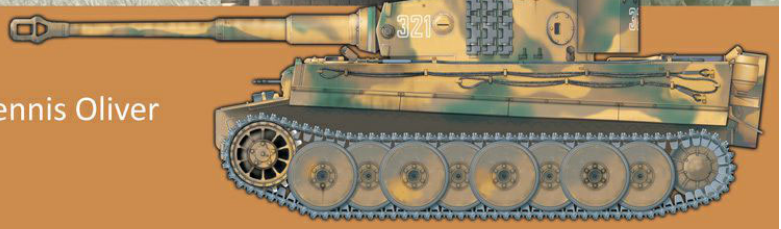

Dennis Oliver

A Tiger I of schwere Panzer-Abteilung 505. Although this tank has been associated with the battalion's first company, the style of the turret numbers, pattern of camouflage and late production features are all indicative of the 3.Kompanie tanks that arrived at the front on 8 July 1943. I believe that at least one other third company Tiger may have been transferred to 1.Kompanie and renumbered as 111 and this is discussed in the Camouflage & Markings section.

TankCraft 20

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Dennis Oliver

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Front cover. At top, Naomasa Dairaku's 1/35 scale early production Tiger I. Further examples of his work can be seen in the Model Showcase section which begins on page 27. At centre, from left to right: A Tiger of 2.Kompanie, schwere Panzer-Abteilung 503 photographed during the early stages of the battle for the Kursk Salient in July 1943. A Tiger I of SS-Panzer-Regiment 2 showing the unit insignia adopted for Operation Citadel. Tiger crewmen loading their tank with armour-piercing and high-explosive rounds. At bottom: An early production Tiger I of 3.Kompanie, schwere Panzer-Abteilung 505. This vehicle is also examined in the Camouflage & Markings section of this book.

First published in Great Britain in 2019 by Pen & Sword Military

An imprint of Pen & Sword Books Ltd
47 Church Street, Barnsley, South Yorkshire, S70 2AS
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ISBN 978 1 52675 582 7
ePUB ISBN 978 1 52675 583 4
Mobi ISBN 978 1 52675 584 1

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From 1937 the firms of Henschel und Sohn, Daimler-Benz, Porsche and MAN had been working on the design of a vehicle in the 30-ton class that would eventually replace the Pzkpfw IV medium tank which was just then entering service. Envisaged as a Durchbruchswagen, or breakthrough vehicle, trials continued on the new design through the last years of peace and into 1940 but without any great urgency.

Momentum increased significantly with the invasion of the Soviet Union and the Wehrmacht's first confrontation with the Russian KV and T-34 tanks which combined heavy, sloped armour with mobility and firepower. In addition to the 30-ton tank, Hitler demanded that work begin immediately on a still-heavier vehicle with armour that would be impervious to any anti-tank gun then in use, could close with the enemy at a minimum speed of 40kph and would be armed with a weapon capable of destroying any tank out to a range of 1,500 metres. Within a year both Henschel and Porsche had developed prototypes that were demonstrated to Hitler on 20 April 1942 and although neither was particularly impressive the Henschel model was ordered into production (1).

The command of the army took some time to decide on how the new tanks would be deployed tactically and it was originally intended that company-sized units made up of Tigers and light tanks would be attached to each Panzer division and employed as spearhead formations (2). Although this idea was quickly dropped, and the Tigers organised into independent battalions, for much of January and February 1943 they were attached to Panzer regiments as a III.Abteilung.

In early March 1943 a reorganisation saw the light tanks removed and the number of companies increased from two to three meaning that a complete schwere Panzer-Abteilung could field forty-five Tiger tanks (3). Tables of organisation for each of the Tiger units covered by this book are included in the main text.

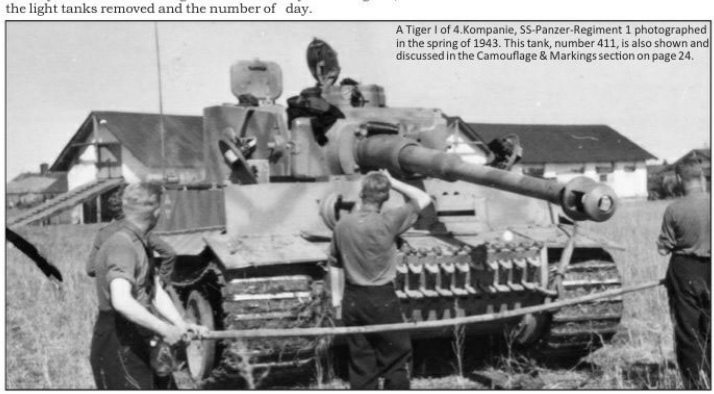
By the summer of 1943 the German army in the East was able to field three complete Tiger battalions and four heavy companies and great things were expected of these units in the coming battles to cut off and destroy the Red Army units in the Kursk salient as part of Operation Citadel.

Although the failure of the German offensive was not the disaster that many Soviet historians claimed, the summer battles of 1943 did mark a high point in the Wehrmacht's fortunes. From then until the end of the war the Red Army would dictate the course of the battle and rarely lost the initiative. German operations were for the most part limited to counterattacks and they would not mount another major offensive in the East before the spring of 1945 when the front had moved as far west as Lake Balaton in Hungary (4)

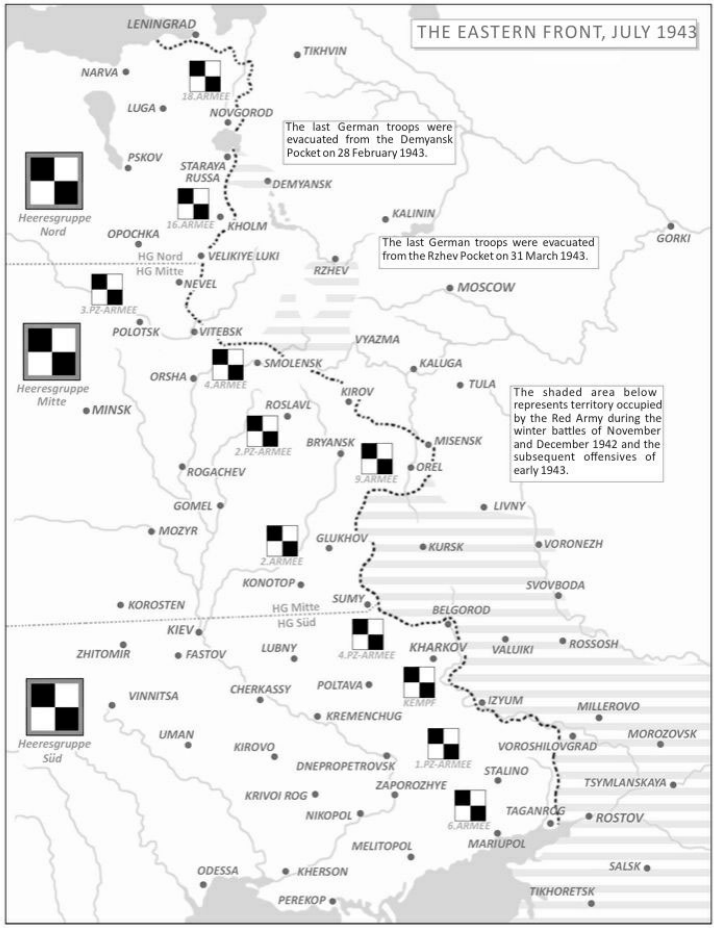
The suggestion that seventy Tigers were left as burning hulks on the battlefield in front of Prokhorovoka on 12 July 1943 was a complete invention on the part of the Russians. Just forty-three of the tanks were available on the southern sector of the front at the start of Operation Citadel and only one was lost on that day. But this claim, amplified in the Pravda headline that proudly proclaimed 'The Tigers are Burning!', in some way served to illustrate how these powerful tanks had entered the collective Russian imagination as a symbol of the enemy's dominance of the battlefield (5). After a few short months, operating in largely insignificant numbers, the Tiger tank had entered the realm of myth and legend, where it remains to this day.

Notes

1. The development of the Tiger is discussed in greater detail in Tiger I and II Tanks: German Army and Waffen-SS Eastern Front 1944.
2. These were Pzkpfw III ausf J and Pzkpfw III ausf N tanks, the latter armed with a 7.5cm gun
3. Many field commanders considered it a mistake when the Pzkpfw III tanks were eventually dropped from the battalion table of organisation as they were capable of performing duties for which the heavy Tigers were unsuitable.
4. Somewhat ironically the tank designed as a breakthrough weapon proved itself to be without equal in the defensive role, destroying Soviet tanks at ranges of up to 2,000 metres.
5. Pravda , as many readers will know, was one of a number of Soviet Government official publications. It is still available today in a printed version, which is owned by the Russian Communist Party, and a separate and distinct online version which has no political affiliation.



A Tiger I of 4.Kompanie, SS-Panzer-Regiment 1 photographed in the spring of 1943. This tank, number 411, is also shown and discussed in the Camouflage & Markings section on page 24.



Our map shows the situation in the East on the eve of the German summer offensive, codenamed Operation Citadel, which commenced on 5 July 1943. By the spring of that year the Red Army had pushed the Germans back from the banks of the Don River, west of Stalingrad, entering the city of Kursk on 8 February and Kharkov, the second-largest city in the Ukraine, just over a week later. Although Kharkov was retaken in March the front line had been pushed back in the south from the Caucasus Mountains to what is today central Ukraine and on the front of Heeresgruppe Nord the siege of Leningrad, which had been encircled since September 1941, had effectively been lifted by the end of January 1943. Employing the assets of two army groups Operation Citadel was, however, dwarfed by the German offensive operations of 1941 and 1942 and it would be the last year of the war before the Wehrmacht mounted another large-scale attack in the East.

2 February 1943. Encircled since late November 1942, the last remnants of 6.Armee, holding out on the northern edge of Stalingrad, surrender to the Soviets. On the same day the last of the Tigers of 8.Kompanie, SS-Panzer-Regiment 2 arrive in the East and are unloaded at Kharkov.

4 February 1943. The last operational Pzkpfw III tank of schwere Panzer-Abteilung 502 is destroyed in the fighting around Sinjavino, 30 kilometres east of Leningrad on the shores of Lake Ladoga.

8 February 1943. Red Army units take Kursk, an important road and rail junction between Voronezh and Kiev, and continue their advance. On the same day the commander of 8.Kompanie, SS-Panzer-Regiment 2, Hauptsturmführer Rolf Grader, is killed as his Tigers defend the railway station at Kharkov.

9 February 1943. Soviet troops enter Belgorod, near the present-day Ukrainian border. The last vehicles of 13.Kompanie, SS-Panzer-Regiment 1 are unloaded at Kharkov. Under the command of Untersturmführer Michael Wittmann, and made up of three Tigers and five Pzkpfw III tanks, this group is diverted to Poltava and will not rejoin the company until early March.

10 February 1943. The tanks of 9.Kompanie, SS-Panzer-Regiment 3 leave Germany for the Eastern Front.

11 February 1943. The Tigers of 13.Kompanie, SS-Panzer-Regiment 1 go into action for the first time at Merefa, 15 kilometres south-west of Kharkov. Three Tigers of schwere Panzer-Abteilung 502, under the command of Leutnant Herbert Meyer, destroy thirty-two Russian tanks in a single action near Mischkino, south-east of Leningrad.

12 February 1943. German troops evacuate Krasnodar and withdraw to the defensive positions in the Kuban bridgehead. On the same day 13.Kompanie, SS-Panzer-Regiment 1 suffers its first casualty when the tank of Unterscharführer Aus der Wischen catches fire during the road march to Poltava.

14 February 1943. Rostov is captured by the Russians.

16 February 1943. Russian troops occupy parts of Kharkov after nine days of savage house-to-house fighting. On the same day the first tanks of 9.Kompanie, SS-Panzer-Regiment 3 are unloaded at the Poltava railway yard.

17 February 1943. The first Tigers of 13.Kompanie, Panzer-Regiment Grossdeutschland arrive in the East.

18 February 1943. Hitler arrives at the headquarters of Heeresgruppe Süd at Zaporozhye to be informed that Kharkov, less than 200 kilometres to the north, has been abandoned to the Soviets.

21 February 1943. A German counterattack, aimed at retaking Kharkov, commences. The Tigers of 9.Kompanie, SS-Panzer-Regiment 3 see their first combat near Pavlograd.

22 February 1943. Units of Heeresgruppe Mitte launch a counterattack in the area between the Dnieper and Donets rivers. On the same day Hauptsturmführer Karl Kloskowski, commanding a Pzkpfw III tank of 8.Kompanie, SS-Panzer-Regiment 2, captures and holds the bridge on the western edge of Pavlograd, giving the Germans access to the town.

25 February 1943. The Red Army launches a major offensive against the front of Heeresgruppe Mitte.

1 March 1943. A Russian offensive to the south of Leningrad pushes the Germans towards the west. The evacuation of the pocket formed around Rzhev commences. Two days later the Russians enter the town.

7 March 1943. After almost two weeks of bitter fighting the Russian assault against Heeresgruppe Mitte is called off and the Soviet units are redirected towards the German drive on Kharkov. The tanks of 13.Kompanie, Panzer-Regiment Grossdeutschland go into action for the first time, attached to Kampfgruppe von Strachwitz.

8 March 1943. Four Tigers of 8.Kompanie, SS-Panzer-Regiment 2 capture the town of Valky, clearing the way for an assault on Kharkov.

11 March 1943. Supported by the Tigers of 13.Kompanie, troops of SS-Panzergrenadier-Division Leibstandarte SS Adolf Hitler (LSSAH) fight their way into the centre of Kharkov. By the evening none of the company's tanks are operational.

12 March 1943. German troops evacuate Vyazma on the Moscow-to-Smolensk highway.

14 March 1943. The Germans declare that Kharkov has been secured although sporadic fighting continues for two more days. Both sides are exhausted by the ceaseless combat and at about this time the spring rains commence, greatly impeding mobile operations. The German counterattack has been a spectacular tactical success but a large bulge has been created in the front around Kursk which extends deep into the German lines.

An early production Tiger I of 3.Kompanie, schwere Panzer-Abteilung 502 photographed in the spring of 1943. This vehicle is also shown and discussed on page 18 of the Camouflage & Markings section.

Tiger tanks of 2.Kompanie, schwere Panzer-Abteilung 503 supporting grenadiers of 19.Panzer-Division during the first days of Operation Citadel. The Pzkpfw III stowage bin, fitted to a number of these early production models, can be seen on the nearest vehicle.

21 March 1943. After two weeks of heavy fighting, Panzer-Regiment Grossdeutschland reports that none of the Tigers are operational.

22 March 1943. German troops recapture Belgorod.

29 March 1943. Oberfeldwebel Johannes Bölter of schwere Panzer-Abteilung 502 is awarded the German Cross in Gold, one of only three soldiers of the battalion to receive the medal. Bolter remained with the battalion until August 1944 when he was badly wounded. Promoted to Hauptmann, he commanded a Kampfgruppe in the West during the last days of the war.

31 March 1943. Five replacement crews arrive for schwere Panzer-Abteilung 502 which was refitting in the area around Taganrog. These men had all been in training with Panzer-Ersatz-Abteilung 500 and had volunteered to fight in the East in order to stay together. Co-incidentally, one of the commanders at the training unit, Hauptmann Hans-Georg Schober, later served with the battalion as the commander of 2.Kompanie.

8 April 1943. In a letter to Stalin, General Georgy Zhukov predicts that German personnel losses will force the Wehrmacht to rely principally on its armoured units and air force in the coming spring and summer and advises that strong anti-tank defences be created in the Soviet Central and Voronezh Front's areas of responsibility. This is precisely were Hitler will decide to attack.

14 April 1943. A limited German attack to the south-east of Leningrad is repulsed.

15 April 1943. Hitler orders that planning commence for a major assault on the salient formed around the city of Kursk to be codenamed Unternehmen Zitadelle, or Operation Citadel. The attack is initially scheduled for early May.

27 April 1943. Generaloberst Walter Model, who is to command 9.Armee in the coming offensive, meets with Hitler to express his concerns about the Soviet defences around Kursk. Model's advice is that the assault should begin immediately or be postponed indefinitely.

1 May 1943. The first elements of the newly-formed schwere Panzer-Abteilung 505 leave Belgium for the Eastern Front.

4 May 1943. At a meeting in Munich Hitler advises his generals that Operation Citadel is to be postponed, countering Manstein's suggestion that the attack begin as soon as possible with the argument that a delay will allow the Tiger units to be built up to full strength and the new Panther tanks to be deployed. The meeting breaks up without a decision being made on the start date.

7 May 1943. Oberkommando der Wehrmacht (OKW) advises the commanders on the Eastern Front that Operation Citadel will commence on 12 June 1943.

10 May 1943. Generaloberst Guderian, the inspector-general of armoured troops, advises Hitler to abandon the coming offensive and conserve the Army's strength. Hitler continues to vacillate and the date for Citadel is again postponed to 20 June 1943.

26 May 1943. The Red Army begins an offensive against the German forces isolated in the Kuban bridgehead.

7 June 1943. General Hiroshi Oshima, the Japanese ambassador to Germany, visits schwere Panzer-Abteilung 502 to witness the performance of the battalion's Tigers. Sometime later a single tank, complete with ammunition, is purchased by the Japanese government but never leaves Europe.

17 June 1943. The OKW Operations Staff advise Hitler to cancel the proposed offensive against the Kursk salient. Unconvinced, he postpones the commencement date yet again to 3 July 1943.

28 June 1943. In preparation for the coming offensive, the tanks of SS-Panzergrenadier-Division Totenkopf, including the Tigers of 9.Kompanie, begin moving towards their assembly point west of Belgorod

1 July 1943. Just two days before the assault on the Kursk salient is scheduled to begin, Hitler postpones the launch of Operation Citadel to Monday, 5 July 1943. With forty operational tanks, schwere Panzer-Abteilung 503 reaches its assembly area at Tolokonoye, south-east of Belgorod. During the hours of darkness the Tigers of 13.Kompanie, SS-Panzer-Regiment 1 begin moving towards their designated positions along the Tomarovka to Bykovka road, south-west of Belgorod.

3 July 1943. The tanks of schwere Panzer-Abteilung 505, with a platoon of Panzer-Kompanie 312 (Funklenk) attached, reach the battalion's assembly area north-west of Orel. On the same day the Tigers of the Das Reich division's heavy tank company take up positions to the east of SS-Panzer-Regiment 1. Throughout the day Soviet aircraft attack the German units as they wait in their deployment areas on either flank of the Kursk salient.

4 July 1943. The Tigers of 13.Kompanie, Panzer-Regiment Grossdeutschland reach their jump-off positions near the village of Moshchenoye, east of Belgorod.

5 July 1943. At 4.30am Operation Citadel begins and immediately runs into trouble as massed Russian artillery accurately pounds the German positions, delaying the attack in many places for up to 30 minutes. Although progress is slower than expected the tanks of II.SS-Panzerkorps are able to reach the second Soviet defensive line by the end of the first day, forcing the Russians to commit the last of their reserves in this area.

6 July 1943. On the northern edge of the Kursk salient units of 9.Armee have failed to make any significant progress while 4.Panzerarmee, on the southern flank, has managed to advance some 20 kilometres. Elements of III.Panzerkorps are able to create a bridgehead across the northern Donets River but are unable to advance further to protect the flank of II.SS-Panzerkorps. Late in the day two Soviet armies begin moving towards Prokhorovka, a village east of the Belgorod to Oboyan road.

7 July 1943. After 48 hours of fierce fighting the German forces attacking the Kursk salient are still unable to achieve a major breakthrough. Tiger number 912 of 9.Kompanie, SS-Panzer-Regiment 3 is destroyed by a direct hit near Luchki, between Yakovlevo and Teterevino. Contrary to Soviet accounts, this was the only tank lost by the company during the Kursk battles.

8 July 1943. The commander of 9.Kompanie, SS-Panzer-Regiment 3, Obersturmführer Wilhelm Schröder, is killed by a round fired from a Russian anti-tank rifle as he stands in the cupola of his tank. The acting commander of schwere Panzer-Abteilung 503, Hauptmann Hans-Jürgen Burmester, reports that his battalion has four operational tanks. The first and second companies of schwere Panzer-Abteilung 505 can field just three tanks but on the same day the battalion's third company finally arrives at the front. A single Tiger of 13.Kompanie, SS-Panzer-Regiment 1 commanded by Unterscharführer Franz Staudegger, manages to halt a Russian assault on the village of Teterevino, 20 kilometres north of Belgorod. Staudegger was later awarded the Ritterkreuz for his actions and credited with the destruction of seventeen Soviet tanks. Although many modern Russian authors dispute both the number of tanks involved in this action and the number destroyed, it is certain that Staudegger was able to hold the enemy for over two hours, expending all his ammunition, eventually forcing them to break off the attack. By the end of the day II.SS-Panzerkorps has broken through the second Soviet defensive line despite having been held up when elements of the corps were diverted to support XLVIII.Panzerkorps near Oboyan.

9 July 1943. German commanders agree that there is little hope of a breakthrough on the northern flank of the Kursk salient but decide to continue offensive actions to draw the Russian reserves away from the southern side. Any chance of success now rests with the tanks of 4.Panzerarmee and Armeeabteilung Kempf. That night, II.SS-Panzerkorps is ordered to move towards Prokhorovka in order to shield the units of 4.Panzerarmee as they cross the Psel River.

10 July 1943. During the early morning elements of the Totenkopf division force a crossing of the Psel and secure a bridgehead. While Panzergrenadier-Division LSSAH captures the Komsomolets State Farm and pushes on to Hill 241.6, the tanks of the Das Reich division secure the eastern flank of the attack. These locations are no longer marked on any modern-day map but must have been located between the village of Mayachki and the railway station of Tankovoye Pole to the south-west of Prokhorovka

11 July 1943. Units of II.SS-Panzerkorps clear the area south of Prokhorovka and seize the last piece of high ground in the area, known as Hill 252.2, after fighting their way across a 5-metre deep anti-tank ditch. By the end of the day the Germans have made some impressive advances but the tanks of SS-Panzergrenadier-Division LSSAH are dangerously exposed with both flanks unprotected and the nearest friendly forces, the tanks of the Das Reich division, some 4 kilometres distant. Unknown to the Germans the Soviet command had planned a counterattack for this day but the proposed assembly areas had been overrun.

12 July 1943. As the troops of II.SS-Panzerkorps advance towards Prokhorovka they are met with an unexpectedly intense artillery barrage and then, at about 8.30am, the tanks of five Soviet armoured brigades advance at speed down the slopes in front of the town. On the division's left flank four Tigers under the command of Untersturmführer Michael Wittmann, with parts of the division's reconnaissance battalion, hold off the Soviet tanks for three hours, firing their 8.8cm guns at almost point-blank range. The huge numerical advantage enjoyed by the Russians is somewhat negated by the order to close with the Germans as quickly as possible and to fire on the move. By early afternoon the German units have been pushed back towards the Oktyabrsky State Farm and at around 6.00pm the Russians finally penetrate the German lines only to be repulsed by a number of assault guns from the Totenkopf division. The Soviet tanks reach the anti-tank ditch which the Germans had crossed on the previous day but are unable to find a way across, many falling into the ditch. At the end of the day the Germans withdraw about 1 kilometre to the south of their original position. Over the next three days the divisions of II.SS-Panzerkorps, now joined by III.SS-Panzerkorps, attempt to push forward to Seversky Donets and encircle and destroy the Russian units they had faced at Prokhorovka but by 15 July, realise they can go no further.

Tiger number 21 of 13.Kompanie, Panzer-Regiment Grossdeutschland photographed with two other tanks of the regiment's heavy company and Pzkpfw V Panthers of Panzer-Abteilung 51 during the opening stages of Operation Citadel. The numbering system used by this company prior to July 1943 is shown in detail on page 50.

The vehicle shown here is one of the very first Befehlstigers assembled and the only purpose-built command tank on hand with the heavy company of SS-Panzer-Regiment 2 at this time. Note the large antenna tube unusually placed on the rear hull. This is presumably the tank which was destroyed on 11 July 1943 in which Hauptsturmführer Karl-Heinz Lorenz, the acting company commander, was killed.

13 July 1943. Hitler orders the suspension of Operation Citadel. The three Waffen-SS divisions were to be withdrawn from the front and sent to Italy in response to the Allied landings in Sicily but in the event only SS-Panzergrenadier-Division LSSAH is transferred.

14 July 1943. The Russians launch a massive counteroffensive in the southern sector of the Kursk salient against the units of 4.Panzerarmee and Armeeabteilung Kempf.

16 July 1943. The last German units withdraw across the Psel River.

22 July 1943. In the sector of Heeresgruppe Nord a massive artillery barrage heralds the start of the Third Battle of Lake Ladoga.

23 July 1943. While supporting the infantrymen of Grenadier-Regiment 407 north of the Moyka Creek near Leningrad, a single Tiger of 2.Kompanie, schwere Panzer-Abteilung 502 commanded by Feldwebel Rudolf Zwetti destroys thirteen Russian tanks and six pillboxes. Feldwebel Zwetti was also able to fight off a Russian force that was attempting to remove two disabled Tigers.

26 July 1943. 13.Kompanie, SS-Panzer-Regiment 1 relinquishes its remaining seventeen Tigers to the heavy tank companies of the Das Reich and Totenkopf divisions.

29 July 1943. Units of Heeresgruppe A commence a series of counterattacks to improve the German positions along the Mius River between Luhansk and Donetsk in southern Ukraine. The Tigers of 9.Kompanie, SS-Panzer-Regiment 3 arrive in the area on the same day.

1 August 1943. Hitler orders the immediate evacuation of the Orel salient. On the same day 13.Kompanie, SS-Panzer-Regiment 1 leaves the Eastern Front for Italy. The Tigers of SS-Panzer-Regiment 2 are ordered to support an attack south of the village of Stepanivka but can field just two tanks, number S02 of Oberscharführer Hellwig and S24 commanded by Obersturmführer Tensfeld. Both vehicles are disabled but later recovered.

2 August 1943. The west bank of the Mius River is cleared and German units occupy their old positions. On the same day Hitler orders that German units in the East are to hold their positions at any cost but with the Russians continuing to gain ground around Orel Manstein adopts what he calls a ' flexible defence', effectively ignoring Hitler's order.

3 August 1943. The Red Army launches an offensive from the Belgorod area toward Poltava and other Russian units are able to penetrate deep into the left flank of Heeresgruppe Süd, forcing the Germans are to retreat.

4 August 1943. Hauptmann Clemens-Heinrich Graf von Kageneck of schwere Panzer-Abteilung 503 is awarded the Ritterkreuz, the first soldier of the battalion to receive the medal. On the same day the Tiger company of SS-Panzer-Regiment 3 is advised that transport back to Germany is being arranged. In the Ukraine the Red Army retakes Orel, forcing 9.Armee to withdraw towards Bryansk to avoid encirclement.

5 August 1943. The Russians take Belgorod and now threaten Kharkov.

6 August 1943. The order to return the Tiger crews of SS-Panzer-Regiment 3 to Germany is cancelled and the remaining tanks are ordered to Kharkov to close the gap between 4.Panzerarmee and Armeeabteilung Kempf.

12 August 1943. Belatedly, Hitler orders the construction of a fortified defensive work along the Dnieper river referred to as the Panther-Wotan Line. The remaining Tigers of schwere Panzer-Abteilung 503 are temporarily attached to SS-Panzergrenadier-Division Das Reich.

15 August 1943. Nine Tigers of 13.Kompanie, Panzer-Regiment Grossdeutschland are transferred to the newly-formed III.Abteilung with their crews to form the battalion's 9.Kompanie.

16 August 1943. The Red Army launches an offensive against the Mius River line toward Stalino.

19 August 1943. Eight Tigers of schwere Panzer-Abteilung 503, in support of SS-Panzer-Abteilung 5, capture Maximovka, south of Krivoy Rog, claiming the destruction of forty-nine Russian tanks and self-propelled guns. Elsewhere, Russian troops manage to breach the German defensive line on the Mius river.

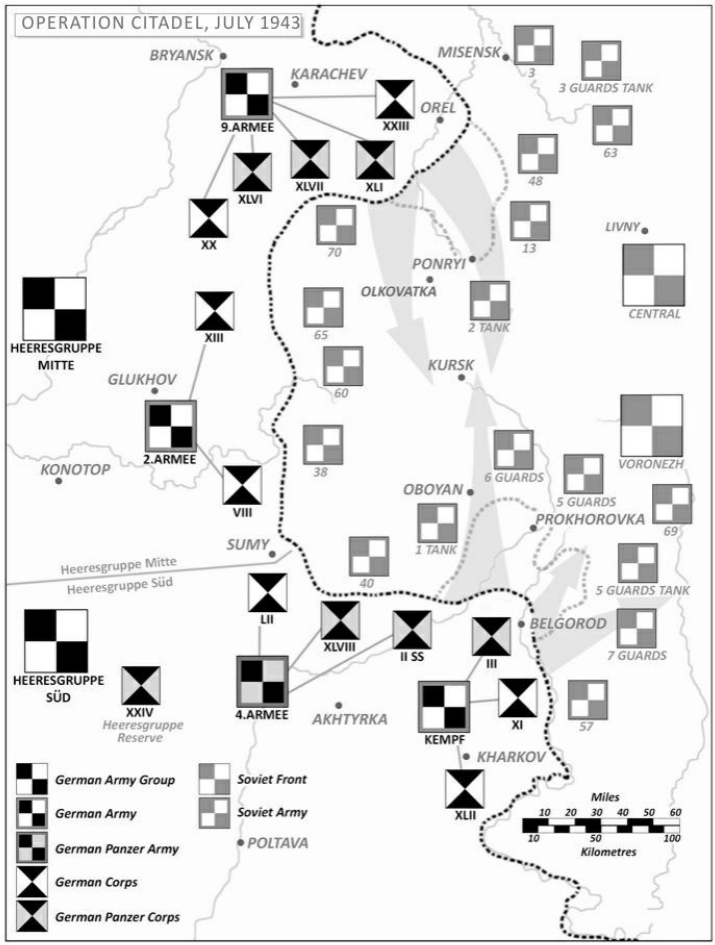
22 August 1943. The Germans abandon Kharkov for the last time. On the following day Soviet units occupy the city.

25 August 1943. The Russians continue their advance to the west of Kharkov.

26 August 1943. Six new Tigers arrive in Poltava for III.Abteilung, Panzer-Regiment Grossdeutschland but having made the 80-kilometre journey on their own tracks just one tank is considered operational.

30 August 1943. Taganrog on the Sea of Azov is evacuated by the Germans.

31 August 1943. At the urging of Generalfeldmarschall Manstein Hitler agrees to limited withdrawals in Ukraine.



The map shows the German dispositions as they were on the evening of 4 July 1943. The front line, and the first of the Soviet defensive positions, is shown by the dark broken line. The arrows indicate the planned lines of advance and the lighter grey broken line shows the actual ground taken before the offensive came to an end. Not shown here are the units of 2.Panzerarmee, which protected the northern flank of the assault, and 1.Armee which was stationed far to the south of Kharkov near modern-day Krasnopavlivka. Although the Red Army forces deployed here may appear overwhelming, it should be noted that a Soviet Army was roughly equivalent to a German Corps and a Front could be compared to an Army Group.

Although the Tiger was envisaged as a breakthrough weapon, the early deployment of the heavy tank battalions was characterised by the use of individual companies, or even tanks, often separated from each other by considerable distances and attached to higher formations whose officers who had little or no understanding of armoured operations.

During the winter of 1942-43, in an effort to develop an effective tactical doctrine, the Tiger battalions that reached the front were attached to Panzer divisions with the intention that they should operate as a third battalion of the division's armoured regiment. This arrangement enjoyed some success but after consultation with the commanders in the field it was decided that the Tiger battalions could be best used if their firepower was massed, operating independently under their own commanders, although this was rarely achieved in practice. In addition, it was decided that the Panzer regiments of the three armoured divisions of the Waffen-SS and the army's Grossdeutschland division should be reinforced with an organic heavy tank company.

Here, and on the following pages, are brief histories of the heavy tank units from their formation until the autumn of 1943. Although some aspects have already been mentioned in Tiger I and Tiger II Tanks: German Army and Waffen-SS Eastern Front 1944, the first book in this series, they are included to give the reader a more complete picture of the German Army's heavy tank formations.

Schwere Panzer-Abteilung 502. Formed on 25 May 1942 from Panzer-Ersatz-Abteilung 35, this unit was not the first of the heavy tank battalions created by the German Army, but it was the first unit to receive an allocation of Tiger tanks. It was also the first to see combat when 1.Kompanie took part in an attack near Tortolovo, some 30 kilometres east of Leningrad on the Volkov Front, on 21 September 1942.

The battalion's first Tigers were the initial production models without the side track guards and many featured the very early stowage bin which was attached to the left-hand side of the turret or the Pzkpfw III version as shown in the Camouflage & Markings section.

Rushed into production, these early model tanks were plagued by mechanical difficulties and were only kept operational with the help of civilian maintenance crews from the Henschel factory temporarily attached to the battalion. The second and third companies, which were forming in France while 1.Kompanie was fighting in the East, were allocated tanks which had the track hangers on the turret sides but still retained the complete Feifel air-filtering system and the drum-style commander's cupola. A number of these Tigers were fitted with an unusual angular stowage bin, which is also shown in the colour profiles, and these could still be seen during the summer battles of 1943.

The battalion's 2.Kompanie was formed from surplus crews of Panzer-Regiment 1 and Panzer-Regiment 35 and arrived in Russia during the first week of January

Photographed during the early autumn of 1943, this Tiger of schwere Panzer-Abteilung 502 is marked with the distinctive Balkenkreuz which was common, but not universal, to many of the second company's tanks. Note that this tank is fitted with the early Feifel air filters which were dropped from production in March 1943 and the spare track holders on the turret that were introduced at about the same time.

Although these images are of rather poor quality they are interesting in that they show the Tigers of schwere Panzer-Abteilung 502 that stopped at Rastenburg in East Prussia on their way to the front to demonstrate their capabilities to a group of senior officers. The vehicle below is fitted with the narrow transport tracks and has had the outer row of roadwheels removed.

1943 but within weeks was transferred to schwere Panzer-Abteilung 503 and renamed as that battalion's third company. While 1.Kompanie remained in the East, a new 2.Kompanie was formed in France from elements of 4.Kompanie, Panzer-Regiment 4 and by the end of May a third company had been raised, mainly from personnel of 8.Kompanie, Panzer-Regiment 3. These men had been in almost continuous front-line service since the invasion of the Soviet Union in 1941 and it would take some time for them to become proficient with their new tanks. At that time 1.Kompanie still had three operational Pzkpfw III tanks on hand and in early June received seven new Tigers, bringing the total to fourteen.

By the end of July the new companies, together with the battalion staff, were reunited with 1.Kompanie in time to take part in the battles around Lake Ladoga and to the south of Leningrad, now Saint Petersburg. During this time the companies were allocated to different units and the tanks were sometimes forced to operate individually without adequate infantry support, much to the chagrin of the battalion commander. Although just two Tigers were lost as a result of enemy action between 22 July 1943, when the Soviet offensive began on the northern front, and the end of August, a large number were immobilised due to breakdowns (1).

During the first week of September 1943 the battalion commander, Major Willi Jähde, reported that his tanks had destroyed over 100 Soviet armoured vehicles in the fighting around Leningrad. Schwere Panzer-Abteilung 503. Formed on 16 April 1942, this unit was actually the first of the German Army's heavy Panzer battalions.

The initial two companies were raised from tank crews of Panzer-Regiment 5 and Panzer-Regiment 6 and, like the crews of schwere Panzer-Abteilung 501, were trained briefly on the Porsche Tiger before the decision was made to manufacture the Henschel version.

The first allocation of Tigers consisted of initial production versions with the large pistol port on the turret right-hand side and, as the battalion was originally intended for service in North Africa, a complete set of the Feifel air-filtration system. Many of these, perhaps all, were fitted with the Pzkpfw III Rommelkiste or stowage bin.

These vehicles were presumably the twenty Tigers and Pzkpfw III ausf N tanks recorded as being converted for operations in Russia from 16 December 1942 and photographic evidence would suggest that the modifications consisted of the removal of the Feifel air filters from the Tigers and possibly the repainting of all the tanks in RAL 7021 Schwartzgrau (2).

On 22 January 1943 the second company of schwere Panzer-Abteilung 502, which had been attached and operating under the battalion's command for some time, was formally transferred and became 3.Kompanie, schwere Panzer-Abteilung 503. A number of these tanks had the angular stowage bin which had been an identifying feature of their former unit.

.....continued on page 11

Notes

1. In addition, one Tiger of 2.Kompanie became hopelessly bogged down on 2 August and was later destroyed by its own crew.
2. In all the images I have been able to examine of this battalion's Tigers from the 1942-1943 period, very few tanks are fitted with the Feifel system. All are marked with the black turret numbers outlined in white that were adopted in the spring of 1943 and they may be the Tigers of 2.Kompanie, schwere Panzer-Abteilung 502 or the replacements received from March 1943.

SCHWERE PANZER-ABTEILUNG 502, SUMMER 1943

All aspects of the German Army were governed by general orders and instructions issued by Oberkommando des Heeres (OKH), the high command of the army. These were accompanied by detailed tables of organisation called Kriegstärkenachweisung (KStN) which gave the authorised strength and composition of a unit listing the exact number of personnel, type of vehicle and weapons. KstN were not issued on a regular basis, as general orders were, but whenever an organisational change was required. E ach KStN was numbered and dated, the latter being significant as some numbers were retained when an establishment was upgraded. From March 1943 schwere Panzer-Abteilungen 502, 503 and 505 were authorised to be reorganised with three companies, each made up of three platoons, in accordance with the KstN shown here. Note that the company numbers depicted here are appropriate for schwere Panzer-Abteilung 502.

EQUIPMENT ALLOCATIONS AND LOSSES. SCHWERE PANZER-ABTEILUNG 502, 1943

Vehicle Type	Status	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Tiger I	Received	0	7	0	0	34	4	0	0
	Lost	6 (1)	0	2 (5)	0	0	0	1	2
	On Hand	2 (2)	9 (3)	7	7 (7)	41 (9)	45	44 (11)	43 (13)
Pzkpfw III	On Hand	10	3 (4)	2 (6)	0 (8)	3 (10)	3	3 (12)	

1. At least one of these tanks was captured intact. 2. One Tiger operational. 3. Four Tigers operational. 4. This figure represents the number of combat-ready tanks. Nine Pzkpfw III tanks were transferred to schwere Panzer-Abteilung 503 during this month. 5. Both were destroyed by their own crews. 6. This number is the operational total. 7. Five Tigers operational. 8. This figure represents the operational total. 9. By this time all three of the battalion's companies were at the front. 10. All three tanks, two Pzkpfw III ausf L and a single ausf N model, were operational. 11. Eighteen Tigers operational. 12. The battalion's Pzkpfw III tanks are not mentioned again after July. 13. Eleven Tigers operational.

Above: Said to have been photographed shortly after its arrival in Russia, this tank of 3.Kompanie, schwere Panzer-Abteilung 502 has already sustained a hit. This may be Tiger 314 shown in one of the images on page 9. Below. Tiger 311 of schwere Panzer-Abteilung 502 depicted during the early summer of 1943. Note the ladder on the hull glacis. Other photographs of this tank show that it was fitted with the Maybach HL 210 P45 engine which was replaced in production by the HL 230 version from May 1943.

.....continued from page 9

Notes

1. Presumably these tanks were also fitted with the production modifications that were introduced prior to April 1943.

2. Commanded by General Werner Kempf, this formation contained three corps-sized units including III.Panzerkorps which included the divisions mentioned here. In late August it was renamed 8.Armee.

The ten replacement tanks that arrived in late April 1943, which all went to 3.Kompanie, and the four vehicles that reached the battalion in early May, all had the loader's periscope fitted to the turret roof (1). At this time the last of the battalion's Pzkpfw III tanks were distributed to other formations.

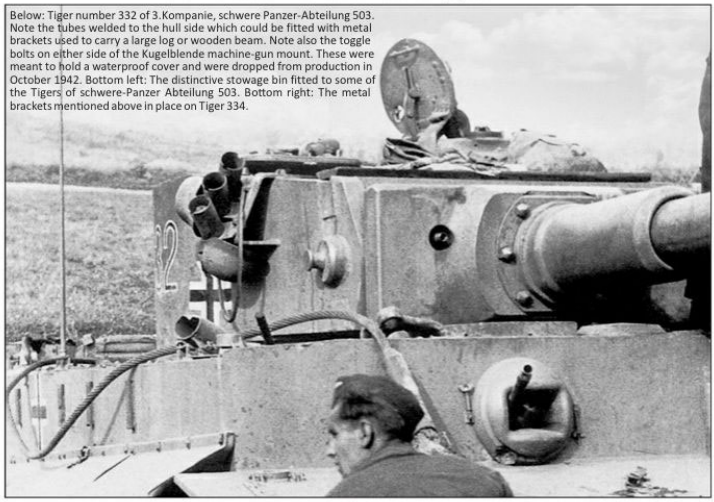
A distinguishing feature of this battalion's Tigers were the metal brackets fixed to one or both hull sides to carry wooden logs or unditching beams. In preparation for Operation Citadel the battalion's workshops also fitted the tanks with spare track links on the glacis and on the hull front and covered the hull sides with strands of barbed wire.

During the battles around Kursk in July 1943 the battalion was subordinated to Armeeabteilung Kempf (2) and the first, second and third companies were attached to 6.Panzer-Division, 19.Panzer-Division and 7.Panzer-Division respectively.

In early August 1943 the battalion took part in the defensive operations around Belgorod and, as the damaged vehicles were returned from the repair depots, later transferred to the Mius River front in what is today eastern Ukraine to support the Waffen-SS divisions Das Reich, Totenkopf and Wiking.

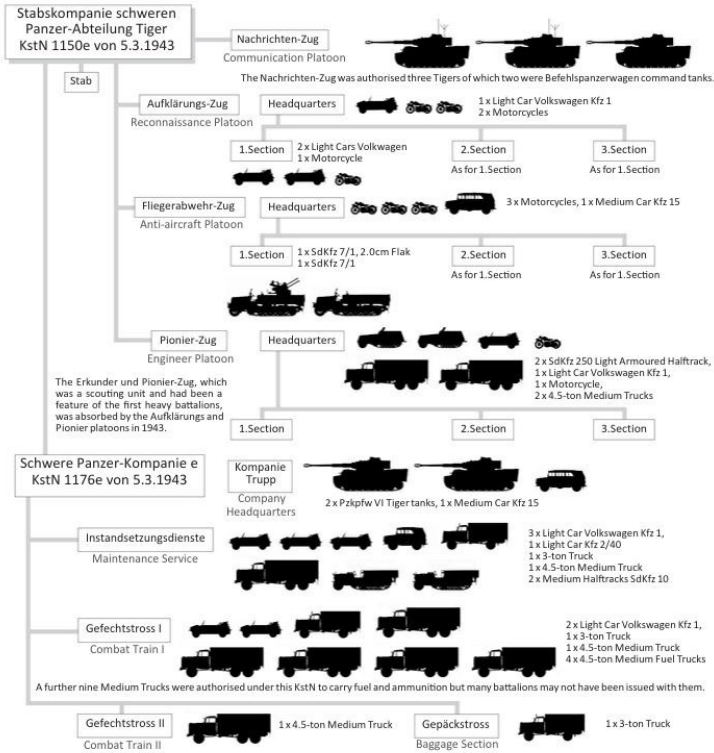
On 23 August the battalion received twelve new Tigers and some of these vehicles may have been mid-production tanks with the cast commander's cupola as explained in the Camouflage & Markings section on page 20.

Below: Tiger number 332 of 3.Kompanie, schwere Panzer-Abteilung 503. Note the tubes welded to the hull side which could be fitted with metal brackets used to carry a large log or wooden beam. Note also the toggle bolts on either side of the Kugelblende machine-gun mount. These were meant to hold a waterproof cover and were dropped from production in October 1942. Bottom left: The distinctive stowage bin fitted to some of the Tigers of schwere-Panzer Abteilung 503. Bottom right: The metal brackets mentioned above in place on Tiger 334.



SCHWERE PANZER-ABTEILUNG 503, SUMMER 1943

This battalion was organised, and its tanks numbered, identically to schwere Panzer-Abteilung 502. The turret numbers and markings were rendered in completely different styles and examples of both units are shown in the Camouflage & Markings section. Therefore, to avoid unnecessary repetition I have endeavoured here to devote more of the available space to the equipment and organisation of the support services that were authorised for these heavy tank battalions. Note that the establishment depicted here is the ideal and the battalion may have differed from time to time.


Stabskompanie schweren Panzer-Abteilung Tiger KstN 1150e von 5.3.1943
Nachrichten-Zug
Communication Platoon
The Nachrichten-Zug was authorised three Tigers of which two were Befehlspanzerwagen command tanks.
Stab
Aufklärungs-Zug
Reconnaissance Platoon
Headquarters
1 x Light Car Volkswagen Kfz 1
2 x Motorcycles
1.Section
2 x Light Cars Volkwagen
1 x Motorcycle
2.Section
As for 1.Section
3.Section
As for 1.Section
Fliegerabwehr-Zug
Anti-aircraft Platoon
Headquarters
3 x Motorcycles, 1 x Medium Car Kfz 15
1.Section
1 x SdKfz 7/1, 2.0cm Flak
1 x SdKfz 7/1
2.Section
As for 1.Section
3.Section
As for 1.Section
Pionier-Zug
Engineer Platoon
Headquarters
2 x SdKfz 250 Light Armoured Halftrack,
1 x Light Car Volkswagen Kfz 1,
1 x Motorcycle,
2 x 4.5-ton Medium Trucks
The Erkunder und Pionier-Zug, which was a scouting unit and had been a feature of the first heavy battalions, was absorbed by the Aufklärungs and Pionier platoons in 1943.
1.Section
2.Section
3.Section
Schwere Panzer-Kompanie e KstN 1176e von 5.3.1943
Kompanie Trupp
Company Headquarters
2 x Pzkpfw VI Tiger tanks, 1 x Medium Car Kfz 15
Instandsetzungsdienste
Maintenance Service
3 x Light Car Volkswagen Kfz 1,
1 x Light Car Kfz 2/40
1 x 3-ton Truck
1 x 4.5-ton Medium Truck
2 x Medium Halftracks SdKfz 10
Gefechtstross I
Combat Train I
2 x Light Car Volkswagen Kfz 1,
1 x 3-ton Truck
1 x 4.5-ton Medium Truck
4 x 4.5-ton Medium Fuel Trucks
A further nine Medium Trucks were authorised under this KstN to carry fuel and ammunition but many battalions may not have been issued with them.
Gefechtstross II
Combat Train II
1 x 4.5-ton Medium Truck
Gepäckstross
Baggage Section
1 x 3-ton Truck

EQUIPMENT ALLOCATIONS AND LOSSES. SCHWERE PANZER-ABTEILUNG 503, 1943

Vehicle Type	Status	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Tiger I	Received	0	9	10 (5)	10 (7)	4	0	0	12
	Lost	5	1	2	0	0	0	7	5 (13)
	On Hand	15 (1)	23 (3)	31 (6)	41 (8)	45 (9)	45 (11)	38 (12)	45 (14)
Pzkpfw III	On Hand	31 (2)	10 (4)	18	13	0 (10)			

1. Seven Tigers operational. 2. Just sixteen of these tanks, originally issued in December 1942, were operational at the end of January 1943. 3. Four Tigers operational. 4. This figure, and the remaining entries for Pzkpfw III tanks, represents the number of operational vehicles. 5. All to 1.Kompanie. 6. Nine Tigers operational. 7. All to 3.Kompanie. 8. All Tigers operational. 9. Forty-two tigers operational. 10. The last of the Pzkpfw III tanks were relinquished during May 1943. 11. Forty Tigers operational. 12. Nine Tigers operational. 13. The record here is contradictory with the four tanks damaged on 29 August 1943 entered into the inventory as destroyed although two vehicles were later recovered. I believe the figures shown here are correct. 14. Eighteen Tigers operational.

Tigers of 3.Kompanie, schwere Panzer-Abteilung 505 photographed during the summer of 1943. In his exhaustive account of the Tiger battalions, Oberst Wolfgang Schneider claims that these tanks had been intended for service in Tunisia and arrived in Russia in North Africa camouflage colours. This is entirely possible and is discussed further in the Camouflage & Markings section from page 21.

Notes

1. These tanks were shipped from the Heereszeugamt between 8 and 10 June 1943 to the elements of the battalion fighting in the East and should not be confused with the delivery made to 3.Kompanie at around the same time.

2. The on-hand figure of forty-five Tigers given in some sources must include the tanks of 3.Kompanie which was still in transit from Paderborn.

3. In the original German edition of Tigers in Combat, Volume 1 this is rendered as ' Die 3. Kompanie (Oberleutnant Barkhausen) - noch in Tropentarnung - trifft endlich bei der Abteilung ein'. Which translates to '3.Kompanie (Oberleutnant Barkhausen), in tropical camouflage, finally arrives at the battalion'.

Schwere Panzer-Abteilung 505. Formed on 29 January 1943 with two companies, the battalion was made up from personnel of 3.Panzer-Division and 26.Panzer-Division. On 3 April, while the first and second companies were training in Belgium, a third company was created using men from 2.Panzer-Division but it would be some months before this formation received any tanks.

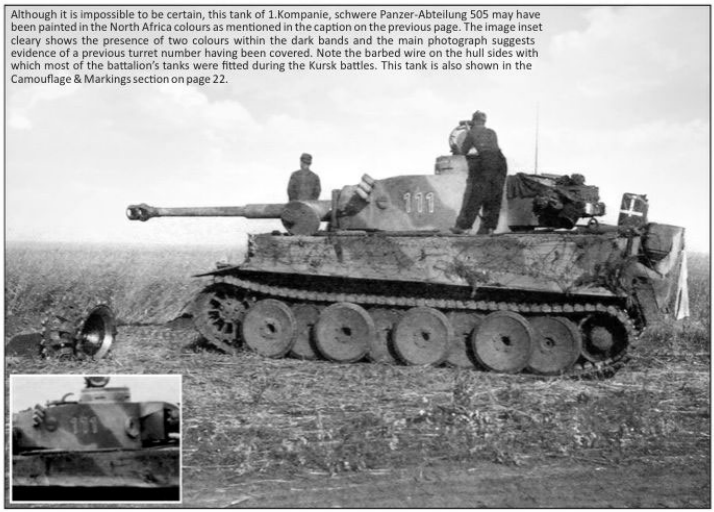
On 1 May 1943,when the first and second companies were ordered to the Eastern Front, the battalion reported that a total of twenty Tigers and twenty-five Pzkpfw III tanks, the latter armed with the 5cm gun, were on hand. The first Tigers were early production models with the drum-style cupola, an access hatch on the turret right-hand side, Feifel air filters and smoke candle dischargers. The eleven replacement tanks received on 20 June 1943 were all fitted with the HL 230 P45 engines and had brackets for spare track links on the turret sides and the loader's periscope in the turret roof (1). Many tanks carried logs on the hull, usually on the left-hand side, and in preparation for Operation Citadel lengths of barbed wire were attached to the hulls.

On Monday, 5 July 1943, the Tigers of the first and second companies, with perhaps as many as thirty-one operational Tigers, took part in the initial actions of Operation Citadel in support of 2.Panzer-Division operating between Soborovka and Olkhovatka and reaching as far as Butyrki on the first day and claiming the destruction of forty-two Soviet T-34 tanks (2). The fourteen Tigers of 3.Kompanie, under Oberleutnant Dr Barkhausen, joined the battalion on the following Thursday, by which time the other companies had been reduced to three undamaged tanks. In his history of the Tiger battalions Oberst Wolfgang Schneider states that the new arrivals were painted in what he refers to as tropical markings (3).

This is entirely possible and it has also been suggested that the early allocations made to the Grossdeutschland division and also the three Waffen-SS divisions may have included a number of Tigers painted in the colours authorised for use in North Africa. If true, the colours would almost certainly have been Braun RAL 8020 and Grau RAL 7027 and this scheme is examined in detail in Tiger I: German Heavy Tank Southern Front North Afric, Sicily and Italy 1942-1945, the tenth book in this series. However, the contrast between these colours in black and white images is almost nonexistent and photographs of the battalion's Tigers in Russia during the summer of 1943 show what appears to be a disruptive pattern of a very light shade painted over a dark base colour. Although we will probably never know, this scheme may have been created by painting patches of Dunkelgelb RAL 7028 over the tropical camouflage and an example is shown in the Camouflage & Markings section.

For the remainder of July 1943 the battalion's tanks remained in the area around Soborovka, east of the Orel to Kursk road, supporting 4.Panzer-Division and a number of infantry formations. At the end of the month the surviving Pzkpfw III tanks, which had been operating with 3.Kompanie, were converted to ammunition carriers and photographs show that these vehicles were maintained by the battalion well into 1944.

.....text continued on page 49

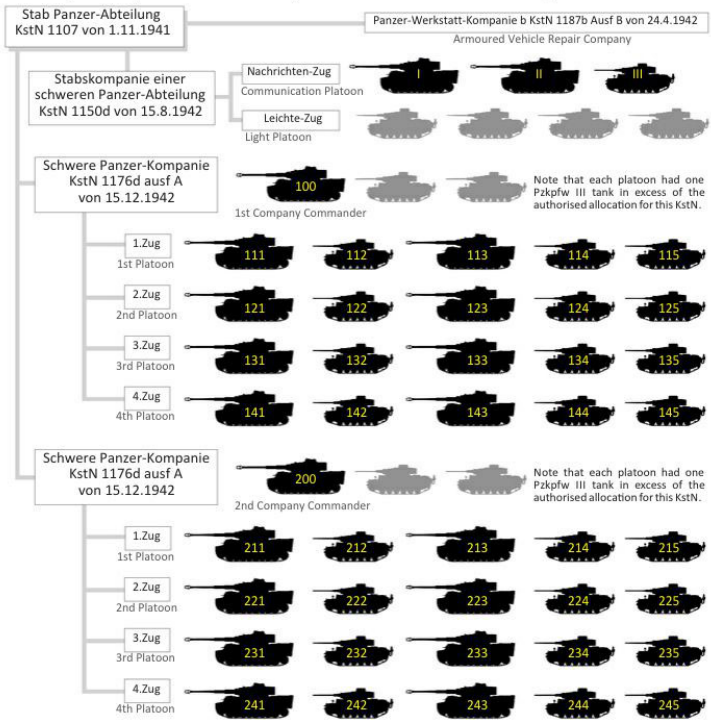


Although it is impossible to be certain, this tank of 1.Kompanie, schwere Panzer-Abteilung 505 may have been painted in the North Africa colours as mentioned in the caption on the previous page. The image inset cleary shows the presence of two colours within the dark bands and the main photograph suggests evidence of a previous turret number having been covered. Note the barbed wire on the hull sides with which most of the battalion's tanks were fitted during the Kursk battles. This tank is also shown in the Camouflage & Markings section on page 22.

A very battered Tiger of 1.Kompanie, schwere Panzer-Abteilung 505 seen here in the late summer of 1943. This tank was also photographed during the early stages of the battle when it was fitted with a full set of Feifel air filters. Note the fire extinguisher on the side of the standard stowage bin.

SCHWERE PANZER-ABTEILUNG 505, SUMMER 1943

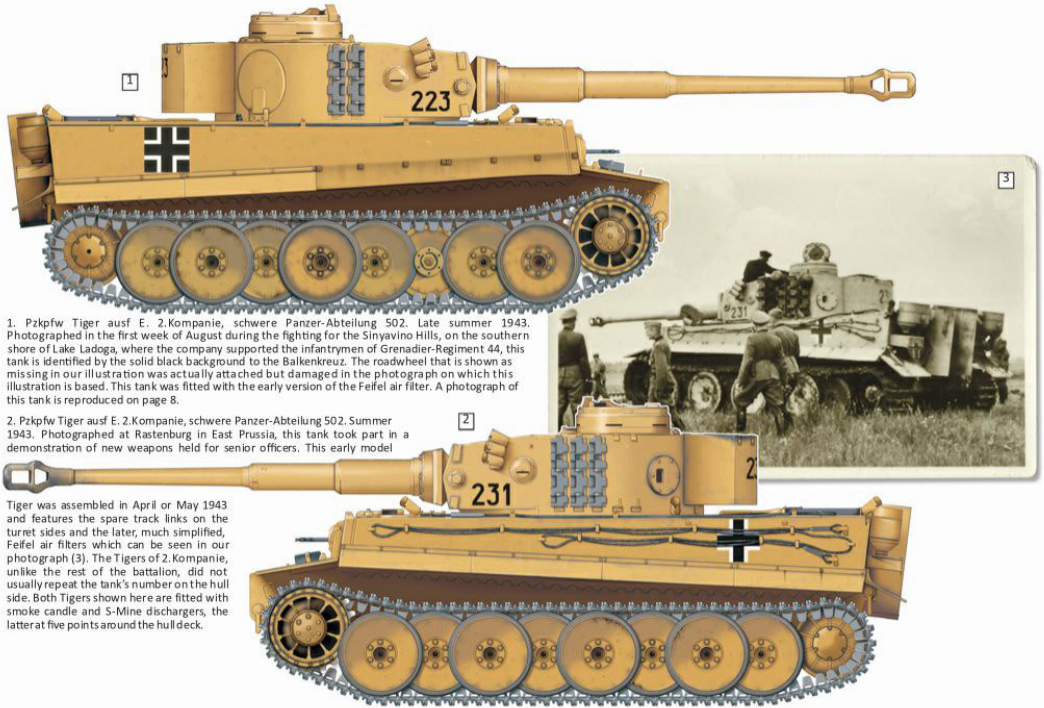
This battalion was the last of the heavy Panzer units to be organised with a mix of Tigers and Pzkpfw III tanks and although a number of sources claim that the light tanks were all relinquished in June 1943, others state that at least sixteen were on hand during Operation Citadel and that ten were still operational at the end of July. At some time the battalion was ordered to be reorganised according to the 5 March 1943 instructions, as were schwere Panzer-Abteilungen 502 and 503 mentioned earlier, with three companies each containing fourteen Tiger tanks with a further three Tigers for the battalion headquarters. But there is ample evidence that schwere Panzer-Abteilungen 505 fought most of the summer battles organised around the earlier KstN tables or, after the arrival of 3.Kompanie on 8 —9 July, a combination of both. The tanks shown as a lighter shade represent the vehicles allocated by KstN 1150d and KstN 1176d Ausf A but not actually on hand with the battalion.



EQUIPMENT ALLOCATIONS AND LOSSES. SCHWERE PANZER-ABTEILUNG 505, 1943

Vehicle Type	Status	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Tiger I	Received		2	18	0	0	11	14	0
	Lost		0	0	0	0	0	6	12
	On Hand		2	20	20	20 (3)	31 (5)	39 (7)	27 (9)
Pzkpfw III	On Hand		0	23 (1)	25 (2)	25 (4)	25 (6)	10 (8)	

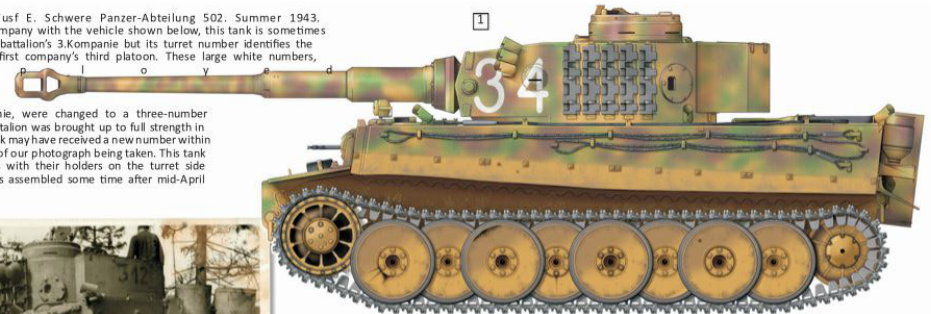
1. All tanks operational. 2. All tanks operational. 3. The battalion arrived in the East with twenty operational Tigers. 4. Twenty-four tanks operational. 5. Twenty-seven Tigers operational. 6. This number is highly speculative and is based on the absence of any mention of losses and the fact that the battalion had only been in action for less than two days. Schneider's account is contradictory, stating that all the Pzkpfw III tanks were relinquished in June while giving the figures shown here for July. This is explained in greater detail in the main text. 7. Three Tigers operational. 8. This number includes five tanks armed with the 5cm L/60 gun and a further five equipped with the 7.5cm weapon. Not shown are three Pzkpfw III bridgelayers. 9. Eleven Tigers operational.



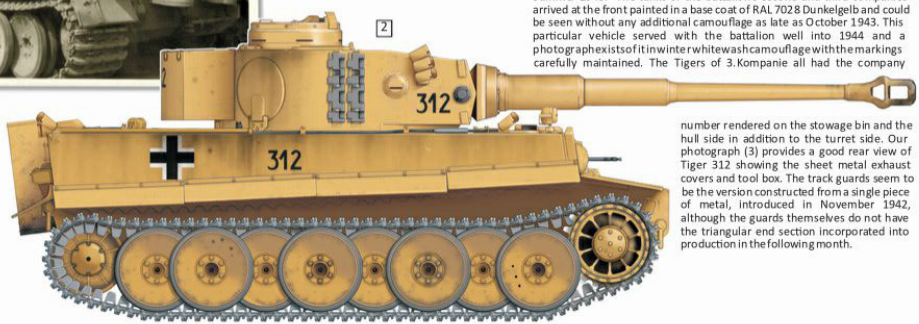
1. Pzkpfw Tiger ausf E. 2.Kompanie, schwere Panzer-Abteilung 502. Late summer 1943. Photographed in the first week of August during the fighting for the Sinyavino Hills, on the southern shore of Lake Ladoga, where the company supported the infantrymen of Grenadier-Regiment 44, this tank is identified by the solid black background to the Balkenkreuz. The roadwheel that is shown as missing in our illustration was actually attached but damaged in the photograph on which this illustration is based. This tank was fitted with the early version of the Feifel air filter. A photograph of this tank is reproduced on page 8.

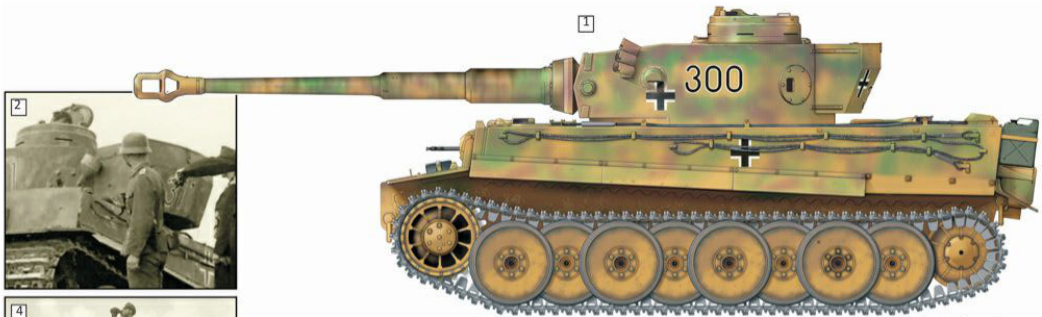
2. Pzkpfw Tiger ausf E. 2.Kompanie, schwere Panzer-Abteilung 502. Summer 1943. Photographed at Rastenburg in East Prussia, this tank took part in a demonstration of new weapons held for senior officers. This early model Tiger was assembled in April or May 1943 and features the spare track links on the turret sides and the later, much simplified, Feifel air filters which can be seen in our photograph (3). The Tigers of 2. Kompanie, unlike the rest of the battalion, did not usually repeat the tank's number on the hull side. Both Tigers shown here are fitted with smoke candle and S-Mine dischargers, the latter at five points around the hull deck.

1. Pzkpfw Tiger ausf E. Schwere Panzer-Abteilung 502. Summer 1943. Photographed in company with the vehicle shown below, this tank is sometimes associated with the battalion's 3.Kompanie but its turret number identifies the fourth tank of the first company's third platoon. These large white numbers, employed briefly by 1.Kompanie, were changed to a three-number system when the battalion was brought up to full strength in July 1943 and this tank may have received a new number within days, or even hours, of our photograph being taken. This tank has the spare tracks with their holders on the turret side indicating that it was assembled some time after mid-April 1943.



2. Pzkpfw Tiger ausf E. 3.Kompanie, schwere Panzer-Abteilung 502. Summer 1943. The tanks of the battalion's second and third companies arrived at the front painted in a base coat of RAL 7028 Dunkelgelb and could be seen without any additional camouflage as late as October 1943. This particular vehicle served with the battalion well into 1944 and a photograph exists of it in winter whitewash camouflage with the markings carefully maintained. The Tigers of 3.Kompanie all had the company number rendered on the stowage bin and the hull side in addition to the turret side. Our photograph (3) provides a good rear view of Tiger 312 showing the sheet metal exhaust covers and tool box. The track guards seem to be the version constructed from a single piece of metal, introduced in November 1942, although the guards themselves do not have the triangular end section incorporated into production in the following month.

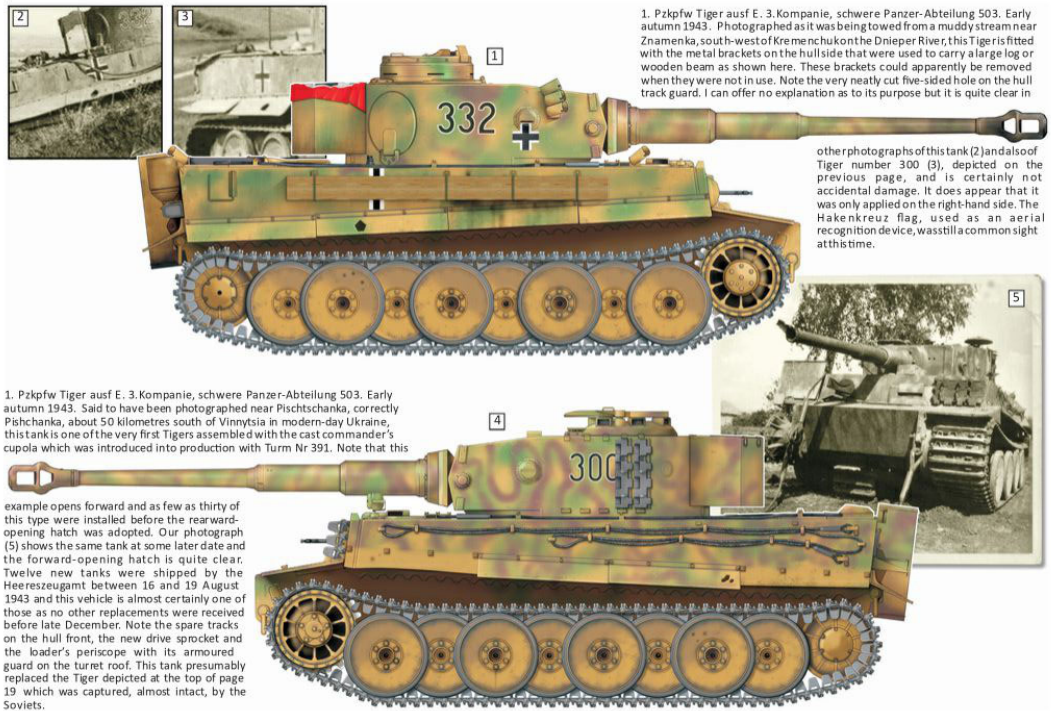




1. Pzkpfw Tiger ausf E. 3.Kompanie, schwere Panzer-Abteilung 503. Autumn 1943. This vehicle was transferred to the battalion from schwere Panzer-Abteilung 502, where it was numbered 211, and has the angular stowage bin seen on many of that unit's Tigers. These were something of an emergency measure as the initial model tanks were rushed to the front before any stowage bins could be delivered from the contractor and the type shown here and in our photograph (2) were probably made at the Fallingbostel training ground. At least one was fitted to a Tiger of SS-Panzer-Regiment 3. Note that the Feifel air filter system has been largely removed and replaced on the left-hand side by a rack and jerry can, a common modification within this battalion.

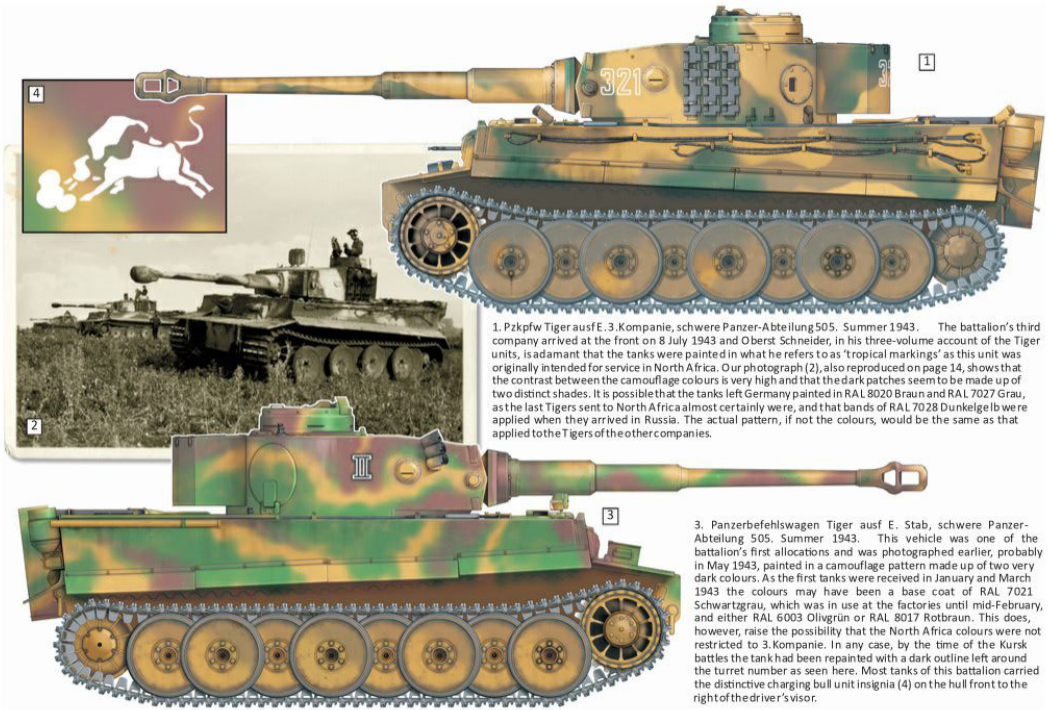
3

3. Pzkpfw Tiger ausf E. 1.Kompanie, schwere Panzer-Abteilung 503. Autumn 1943. As mentioned in the Technical Details & Modifications section, a number of early production Tigers were fitted with Pzkpfw III stowage bins (4) between August and December 1942 and many of these tanks soldiered on well into the new year with the example shown here probably photographed in October or November 1943. Note the unusual rendering of the company number, repeated on the stowage bin, and the remnants of the barbed wire defence with which the hulls of these tanks were covered for Operation Citadel. The Hakenkreuz flag draped across the rear deck was a common aerial recognition device.



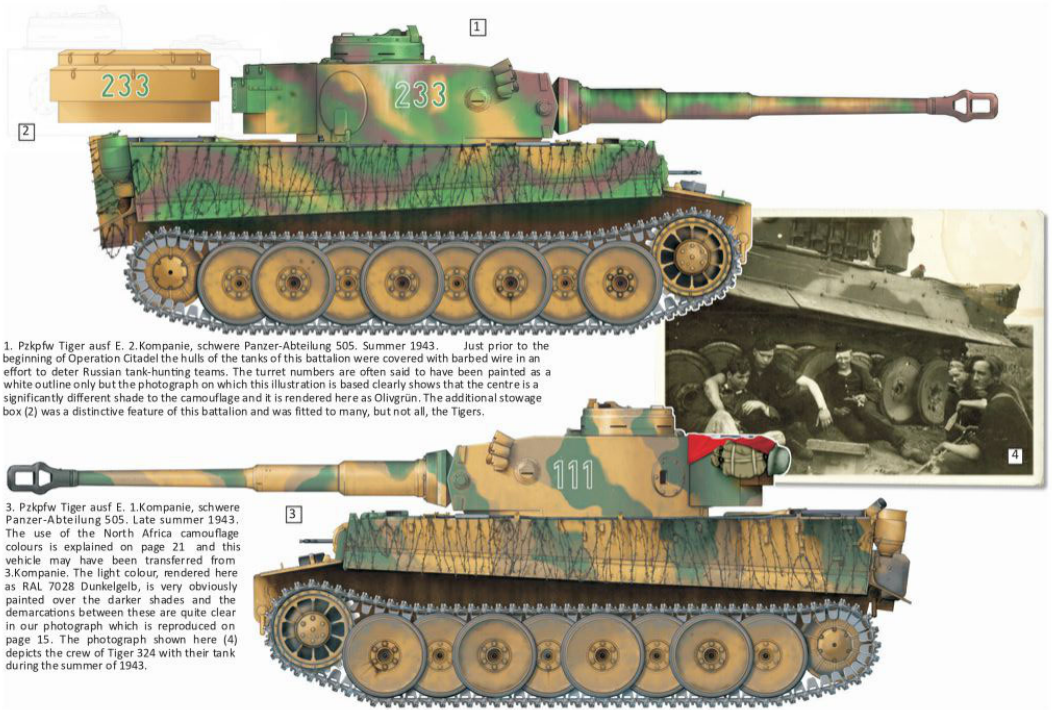
1. Pzkpfw Tiger ausf E. 3.Kompanie, schwere Panzer-Abteilung 503. Early autumn 1943. Photographed as it was being towed from a muddy stream near Znamenka, south-west of Kremenchuk on the Dnieper River, this Tiger is fitted with the metal brackets on the hull side that were used to carry a large log or wooden beam as shown here. These brackets could apparently be removed when they were not in use. Note the very neatly cut five-sided hole on the hull track guard. I can offer no explanation as to its purpose but it is quite clear in other photographs of this tank (2) and also of Tiger number 300 (3), depicted on the previous page, and is certainly not accidental damage. It does appear that it was only applied on the right-hand side. The Hakenkreuz flag, used as an aerial recognition device, was still a common sight at this time.

1. Pzkpfw Tiger ausf E. 3.Kompanie, schwere Panzer-Abteilung 503. Early autumn 1943. Said to have been photographed near Pischtschanka, correctly Pishchanka, about 50 kilometres south of Vinnytsia in modern-day Ukraine, this tank is one of the very first Tigers assembled with the cast commander's cupola which was introduced into production with Turm Nr 391. Note that this example opens forward and as few as thirty of this type were installed before the rearward-opening hatch was adopted. Our photograph (5) shows the same tank at some later date and the forward-opening hatch is quite clear. Twelve new tanks were shipped by the Heereszeugamt between 16 and 19 August 1943 and this vehicle is almost certainly one of those as no other replacements were received before late December. Note the spare tracks on the hull front, the new drive sprocket and the loader's periscope with its armoured guard on the turret roof. This tank presumably replaced the Tiger depicted at the top of page 19 which was captured, almost intact, by the Soviets.



1. Pzkpfw Tiger ausf E. 3. Kompanie, schwere Panzer-Abteilung 505. Summer 1943. The battalion's third company arrived at the front on 8 July 1943 and Oberst Schneider, in his three-volume account of the Tiger units, is adamant that the tanks were painted in what he refers to as 'tropical markings' as this unit was originally intended for service in North Africa. Our photograph (2), also reproduced on page 14, shows that the contrast between the camouflage colours is very high and that the dark patches seem to be made up of two distinct shades. It is possible that the tanks left Germany painted in RAL 8020 Braun and RAL 7027 Grau, as the last Tigers sent to North Africa almost certainly were, and that bands of RAL 7028 Dunkelgelb were applied when they arrived in Russia. The actual pattern, if not the colours, would be the same as that applied to the Tigers of the other companies.

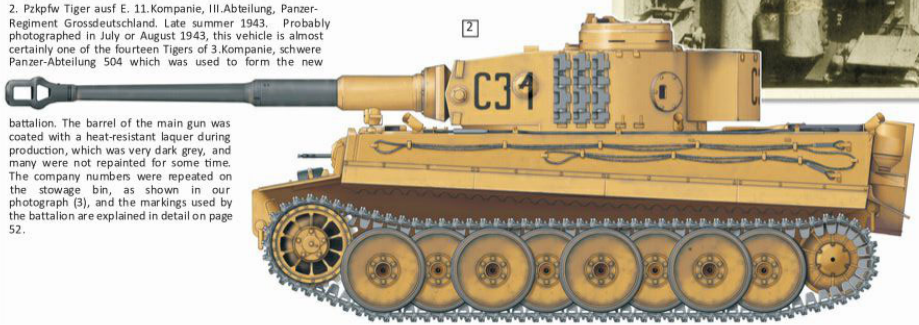
3. Panzerbefehlswagen Tiger ausf E. Stab, schwere Panzer-Abteilung 505. Summer 1943. This vehicle was one of the battalion's first allocations and was photographed earlier, probably in May 1943, painted in a camouflage pattern made up of two very dark colours. As the first tanks were received in January and March 1943 the colours may have been a base coat of RAL 7021 Schwartzgrau, which was in use at the factories until mid-February, and either RAL 6003 Olivgrün or RAL 8017 Rotbraun. This does, however, raise the possibility that the North Africa colours were not restricted to 3. Kompanie. In any case, by the time of the Kursk battles the tank had been repainted with a dark outline left around the turret number as seen here. Most tanks of this battalion carried the distinctive charging bull unit insignia (4) on the hull front to the right of the driver's visor.



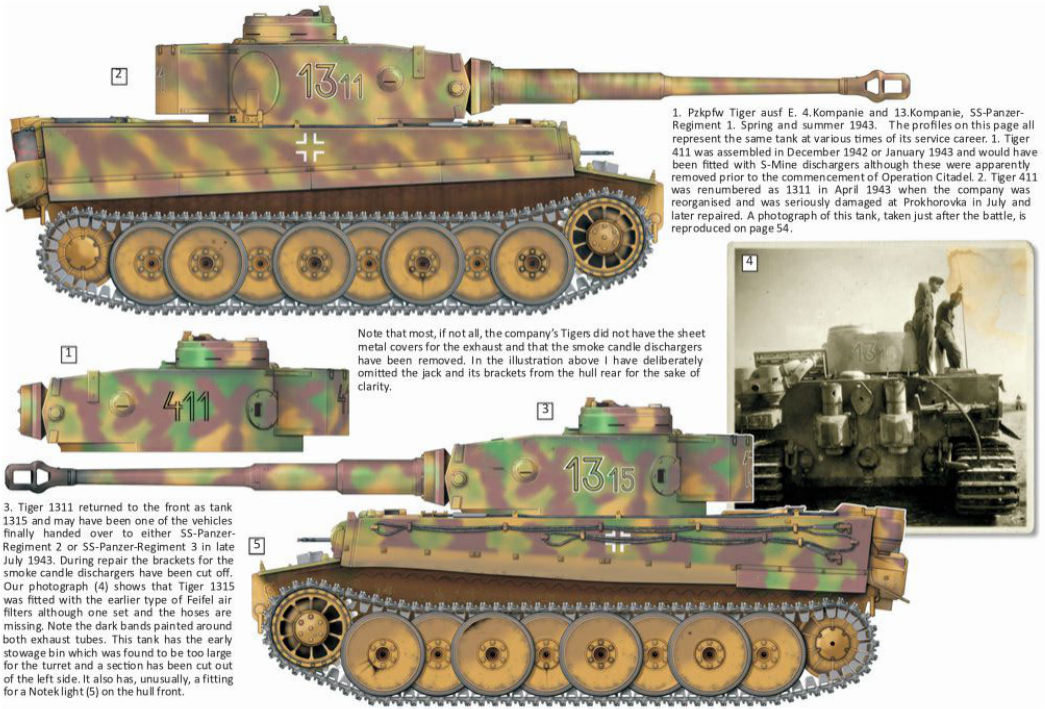
1. Pzkpfw Tiger ausf E. 2.Kompanie, schwere Panzer-Abteilung 505. Summer 1943. Just prior to the beginning of Operation Citadel the hulls of the tanks of this battalion were covered with barbed wire in an effort to deter Russian tank-hunting teams. The turret numbers are often said to have been painted as a white outline only but the photograph on which this illustration is based clearly shows that the centre is a significantly different shade to the camouflage and it is rendered here as Olivgrün. The additional stowage box (2) was a distinctive feature of this battalion and was fitted to many, but not all, the Tigers.

3. Pzkpfw Tiger ausf E. 1.Kompanie, schwere Panzer-Abteilung 505. Late summer 1943. The use of the North Africa camouflage colours is explained on page 21 and this vehicle may have been transferred from 3.Kompanie. The light colour, rendered here as RAL 7028 Dunkelgelb, is very obviously painted over the darker shades and the demarcations between these are quite clear in our photograph which is reproduced on page 15. The photograph shown here (4) depicts the crew of Tiger 324 with their tank during the summer of 1943.

1. Pzkpfw Tiger ausf E. 13.Kompanie, Panzer-Regiment Grossdeutschland. Summer 1943. Prior to the commencement of the Operation Citadel offensive the Tigers of this company were all renumbered, as explained on page 50, and most showed evidence of the change. Note the large stowage bin held to the turret by two metal beams. The log tied to the side of the hull was to be used if the tank became bogged in the muddy soil south of Kursk. From June 1943 the dischargers for the smoke candles,or Nebelwurfgeräte, were no longer fitted to the turret sides during production and shortly afterwards they were ordered to be removed by units in the field.



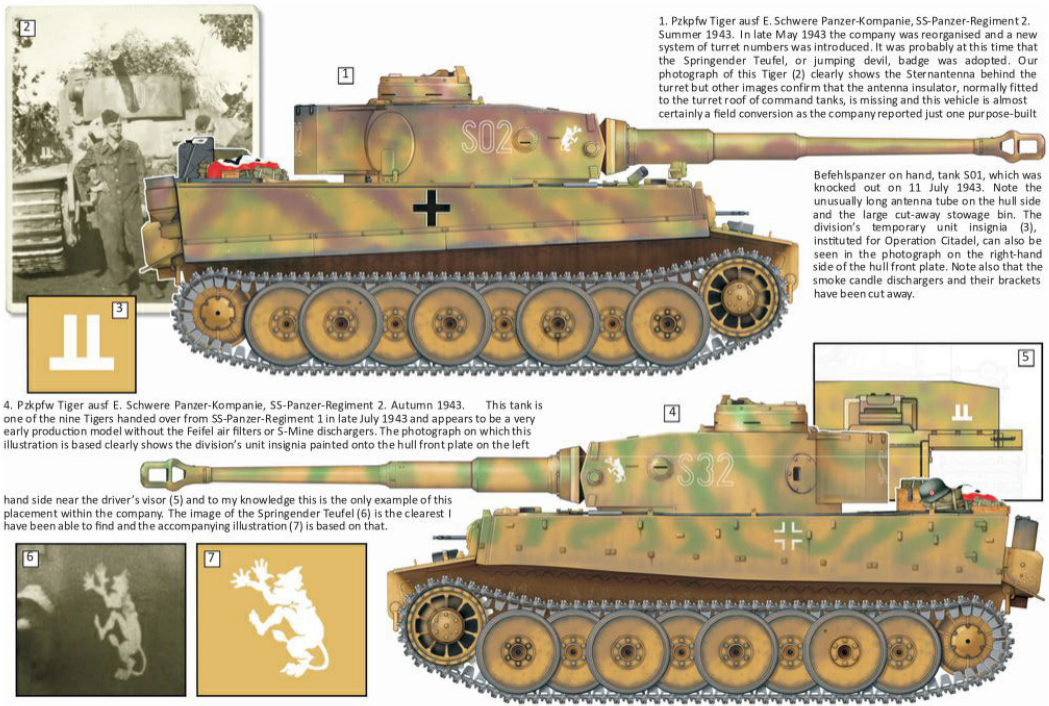
2. Pzkpfw Tiger ausf E. 11.Kompanie, III.Abteilung, Panzer-Regiment Grossdeutschland. Late summer 1943. Probably photographed in July or August 1943, this vehicle is almost certainly one of the fourteen Tigers of 3.Kompanie, schwere Panzer-Abteilung 504 which was used to form the new battalion. The barrel of the main gun was coated with a heat-resistant laquer during production, which was very dark grey, and many were not repainted for some time. The company numbers were repeated on the stowage bin, as shown in our photograph (3), and the markings used by the battalion are explained in detail on page 52.



1. Pzkpfw Tiger ausf E. 4.Kompanie and 13.Kompanie, SS-Panzer-Regiment 1. Spring and summer 1943. The profiles on this page all represent the same tank at various times of its service career. 1. Tiger 411 was assembled in December 1942 or January 1943 and would have been fitted with S-Mine dischargers although these were apparently removed prior to the commencement of Operation Citadel. 2. Tiger 411 was renumbered as 1311 in April 1943 when the company was reorganised and was seriously damaged at Prokhorovka in July and later repaired. A photograph of this tank, taken just after the battle, is reproduced on page 54.

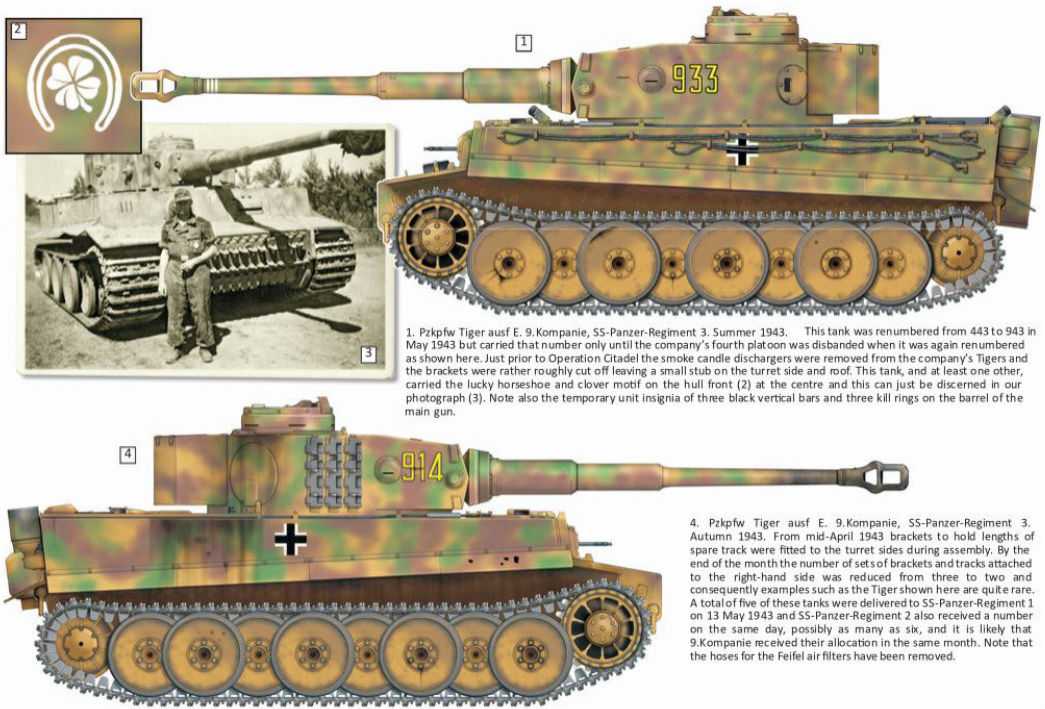
Note that most, if not all, the company's Tigers did not have the sheet metal covers for the exhaust and that the smoke candle dischargers have been removed. In the illustration above I have deliberately omitted the jack and its brackets from the hull rear for the sake of clarity.

3. Tiger 1311 returned to the front as tank 1315 and may have been one of the vehicles finally handed over to either SS-Panzer-Regiment 2 or SS-Panzer-Regiment 3 in late July 1943. During repair the brackets for the smoke candle dischargers have been cut off. Our photograph (4) shows that Tiger 1315 was fitted with the earlier type of Feifel air filters although one set and the hoses are missing. Note the dark bands painted around both exhaust tubes. This tank has the early stowage bin which was found to be too large for the turret and a section has been cut out of the left side. It also has, unusually, a fitting for a Notek light (5) on the hull front.



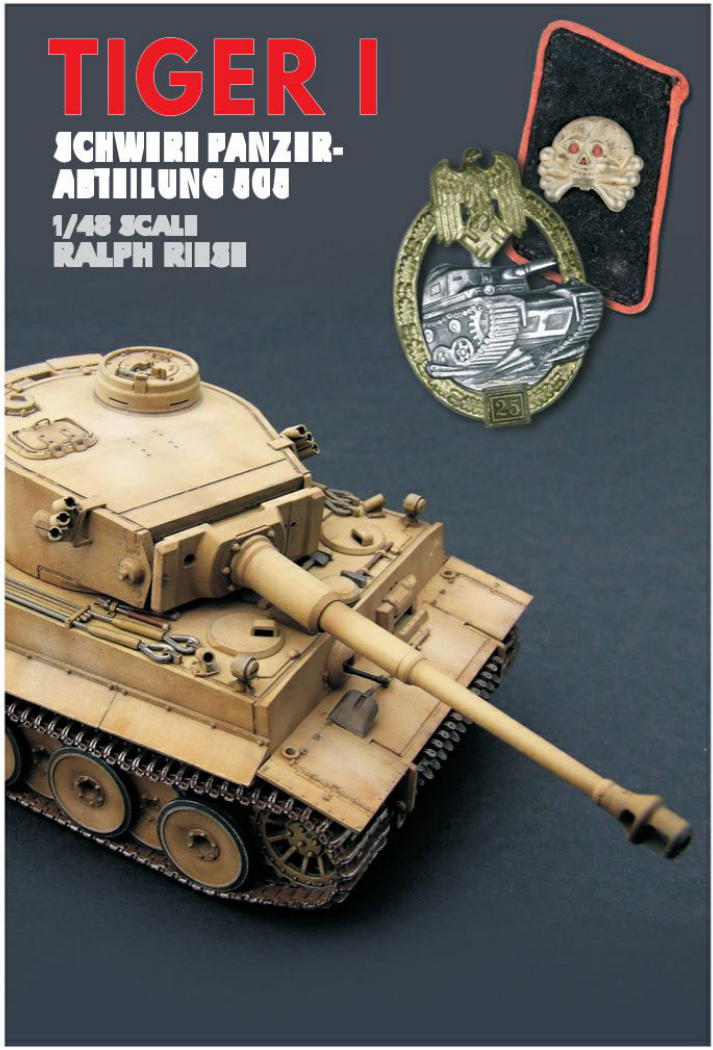
1. Pzkpfw Tiger ausf E. Schwere Panzer-Kompanie, SS-Panzer-Regiment 2. Summer 1943. In late May 1943 the company was reorganised and a new system of turret numbers was introduced. It was probably at this time that the Springender Teufel, or jumping devil, badge was adopted. Our photograph of this Tiger (2) clearly shows the Sternantenna behind the turret but other images confirm that the antenna insulator, normally fitted to the turret roof of command tanks, is missing and this vehicle is almost certainly a field conversion as the company reported just one purpose-built Befehlspanzer on hand, tank S01, which was knocked out on 11 July 1943. Note the unusually long antenna tube on the hull side and the large cut-away stowage bin. The division's temporary unit insignia (3), instituted for Operation Citadel, can also be seen in the photograph on the right-hand side of the hull front plate. Note also that the smoke candle dischargers and their brackets have been cut away.

4. Pzkpfw Tiger ausf E. Schwere Panzer-Kompanie, SS-Panzer-Regiment 2. Autumn 1943. This tank is one of the nine Tigers handed over from SS-Panzer-Regiment 1 in late July 1943 and appears to be a very early production model without the Feifel air filters or S-Mine dischargers. The photograph on which this illustration is based clearly shows the division's unit insignia painted onto the hull front plate on the left hand side near the driver's visor (5) and to my knowledge this is the only example of this placement within the company. The image of the Springender Teufel (6) is the clearest I have been able to find and the accompanying illustration (7) is based on that.



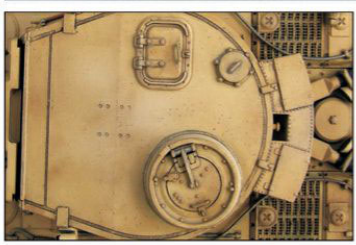
1. Pzkpfw Tiger ausf E. 9.Kompanie, SS-Panzer-Regiment 3. Summer 1943. This tank was renumbered from 443 to 943 in May 1943 but carried that number only until the company's fourth platoon was disbanded when it was again renumbered as shown here. Just prior to Operation Citadel the smoke candle dischargers were removed from the company's Tigers and the brackets were rather roughly cut off leaving a small stub on the turret side and roof. This tank, and at least one other, carried the lucky horseshoe and clover motif on the hull front (2) at the centre and this can just be discerned in our photograph (3). Note also the temporary unit insignia of three black vertical bars and three kill rings on the barrel of the main gun.

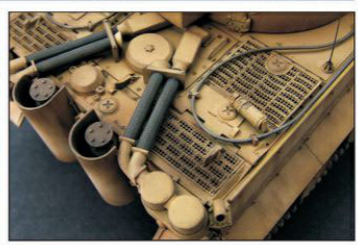
4. Pzkpfw Tiger ausf E. 9.Kompanie, SS-Panzer-Regiment 3. Autumn 1943. From mid-April 1943 brackets to hold lengths of spare track were fitted to the turret sides during assembly. By the end of the month the number of sets of brackets and tracks attached to the right-hand side was reduced from three to two and consequently examples such as the Tiger shown here are quite rare. A total of five of these tanks were delivered to SS-Panzer-Regiment 1 on 13 May 1943 and SS-Panzer-Regiment 2 also received a number on the same day, possibly as many as six, and it is likely that 9.Kompanie received their allocation in the same month. Note that the hoses for the Feifel air filters have been removed.


TIGER I
SCHWERE PANZER-
ABTEILUNG 503
1/48 SCALE
RALPH RIESI

Australian modeller Ralph Riese's 1/48 scale replica was created using the AFV Club early production Tiger I kit. The model was built straight from the box, following the kit instructions and using the markings supplied.

Below: Details of the completed model including the Feifel air filters and hoses, fire extinguisher, turret escape hatch and turret roof detail.





Above: Another shot of the completed model. Note the finely-detailed S-Mine dischargers on the hull sides.
Below: A close-up of the hull front showing the long-handled shovel attached to the glacis and the unit insignia of schwere Panzer-Abteilung 505 to the right of the driver's visor.

TIGER I

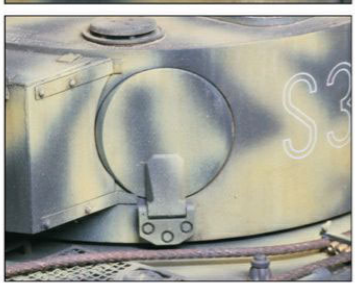
SCHWERE-KOMPANIE
SS-PANZER-REGIMENT 2
DAS REICH

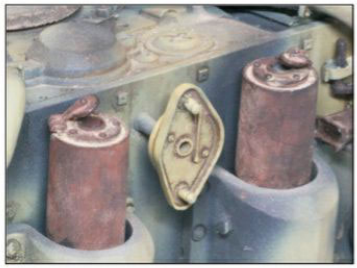
1/35 SCALE

NAOMASA DAIRAKU

Japanese modeller Naomasa Dairaku's work will be familiar to readers of this series and this model, based on Dragon's early production 1/35 scale kit, exhibits the painstaking attention to detail for which he is well known.

Note the large stowage box with the side cut-outs, which was a common feature of the Tigers of this company, and the stub of metal behind the jumping devil insignia where the smoke candle brackets were removed.





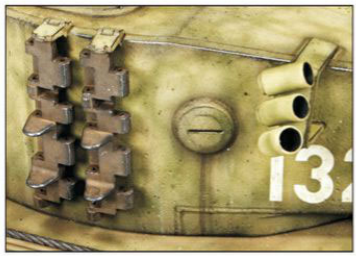
The finished model was painted with Gaia Colour Military Paints, a range that is popular with Japanese modellers, and weathered with MIG pigments. As discussed in the main text, this tank was originally numbered 812 until some time in mid-April 1943 when the number was changed to 833 and the finally 534 in May.

TIGER I

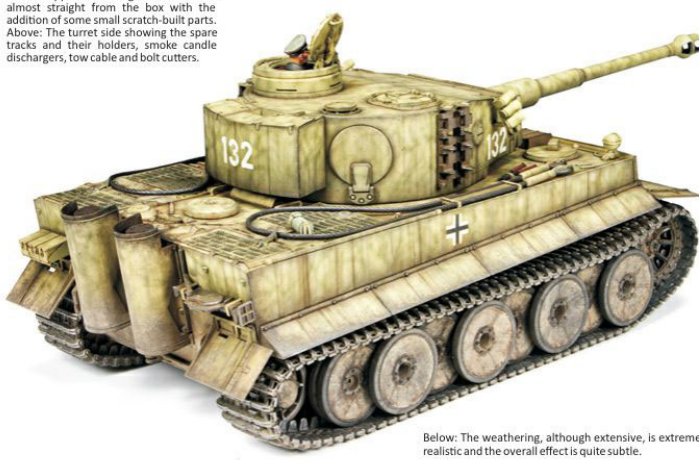
SCHWERE PANZER-ABTEILUNG 502

1/35 SCALE

LUCIANO RODRIGUEZ

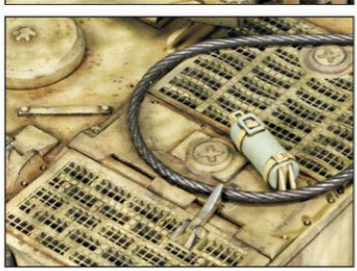


Luciano's model is based on Dragon's 1/35 scale early production Tiger I and was built almost straight from the box with the addition of some small scratch-built parts. Above: The turret side showing the spare tracks and their holders, smoke candle dischargers, tow cable and bolt cutters.



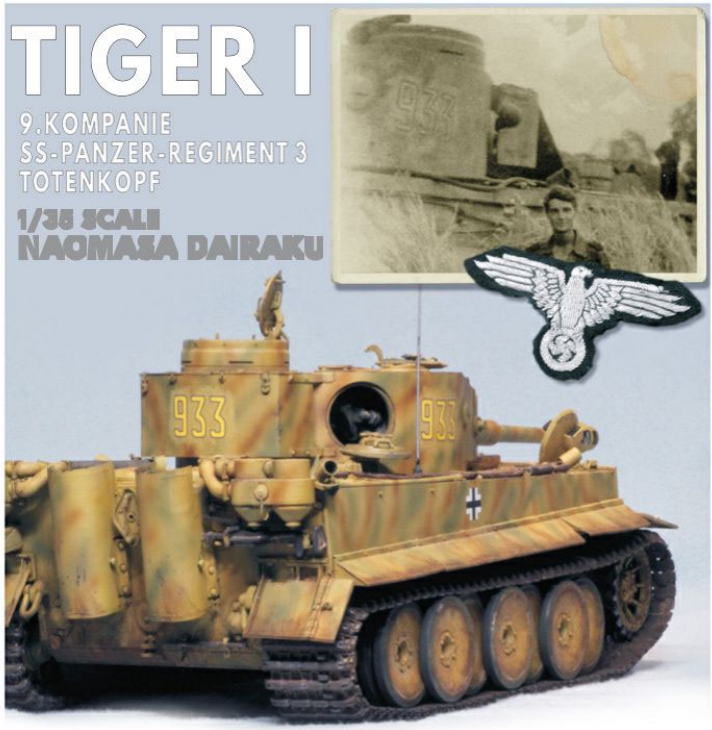
Below: The weathering, although extensive, is extremely realistic and the overall effect is quite subtle.

Another view of Luciano's completed model with close-up shots of the commander in his cupola, the hull rear deck and the later style drive sprocket and road wheels. The Tigers of the battalion's first company used these white numbers for a short period in early 1943.



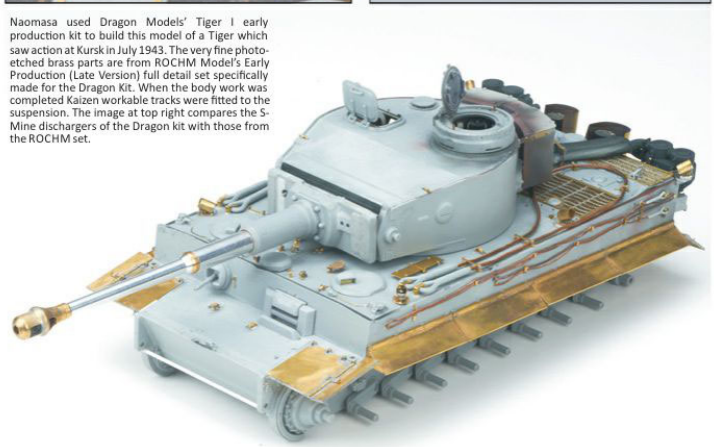
132

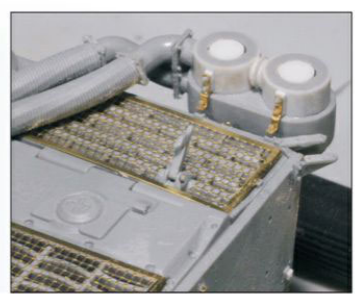
132
132

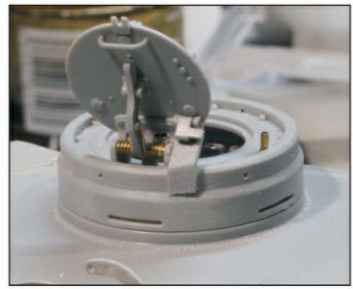

TIGER I
9.KOMPANIE
SS-PANZER-REGIMENT 3
TOTENKOPF
1/35 SCALE
NAOMASA DAIRAKU
933
933

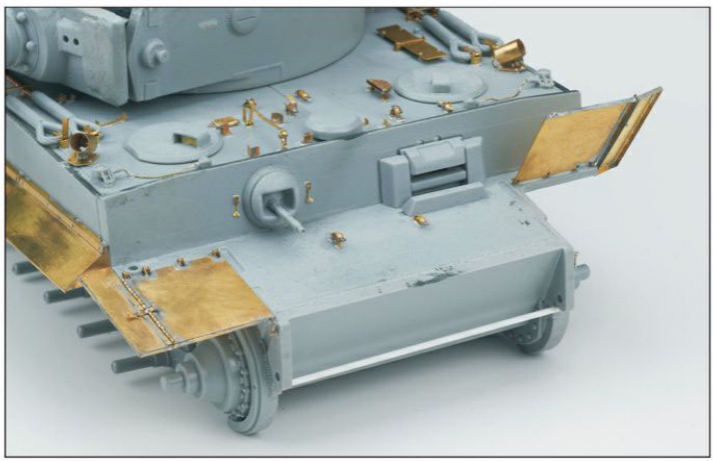
933

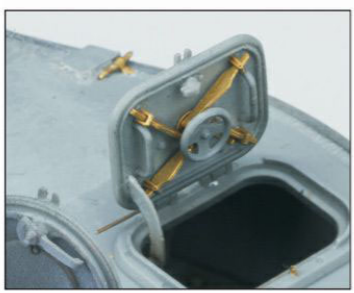
Naomasa used Dragon Models' Tiger I early production kit to build this model of a Tiger which saw action at Kursk in July 1943. The very fine photo-etched brass parts are from ROCHM Model's Early Production (Late Version) full detail set specifically made for the Dragon Kit. When the body work was completed Kaizen workable tracks were fitted to the suspension. The image at top right compares the S-Mine dischargers of the Dragon kit with those from the ROCHM set.

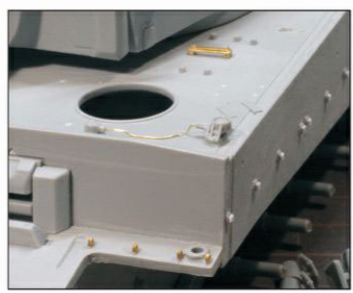




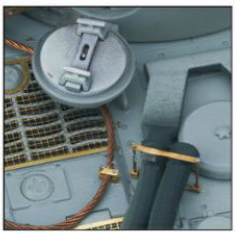


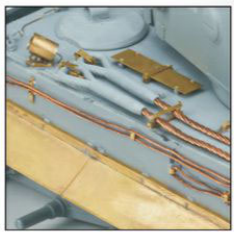


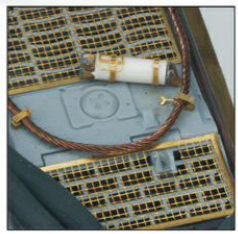




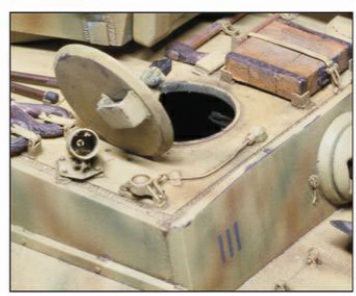
The model was pre-shaded in some areas, including the space behind the gun mantlet, the air filter hoses and around the stowage bin, before the wheels and tracks were attached.



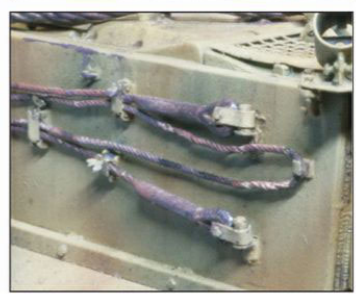




Once construction was complete the model was painted in a base coat of Gaia Colour 201 Dark Yellow and camouflaged with 202 Olive Green and 203 Red Brown. Naomasa also used Mr Colour paints on some areas. Finally the model was weathered using MIG pigments.



At right: A rear view of the completed model. Below: Details of Naomasa's finished replica. Note the large metal beams holding the stowage bin to the turret, small padlocks and worn towing cables. The wealth of detail on this model is quite incredible.



As perhaps the most famous armoured vehicle of the Second World War period it should come as no surprise that over the years all major model manufacturers, and many smaller concerns, have offered a kit of the Tiger I. The majority of the models released during the last twenty years have been highly detailed replicas, increasingly featuring photo-etched parts and other so-called aftermarket items as standard. Many depict variants which were operational for just a short period of time or which may have only taken part in a single battle. The popularity of the models produced by the larger manufacturers has also led to the proliferation of specialised companies producing additional items such as resin and metal accessories and marking options.

Models of the Tiger I are produced in a number of scales from tiny 6mm wargames miniatures to the huge, radio-controlled 1/6 scale versions but these are at the extreme ends of the market and I have chosen to concentrate here, as in the previous books in this series, on the most popular modelling scales of 1/35, 1/48 and 1/72.

As many of the accessory and aftermarket manufacturers have been covered extensively in earlier titles, most notably Tiger I and Tiger II Tanks: German Army and Waffen-SS, Eastern Front 1944, Tiger I: German Army Heavy Tank, Southern Front North Africa, Sicily and Italy 1942-1945and Tiger I and Tiger II Tanks: German Army and Waffen-SS, The Last Battles in the West 1945 I have chosen to concentrate here on the model manufacturers only, which has allowed us to expand the Model Showcase section.

An index of kit and accessory manufacturers and their contact details can be found on page 64.

TAMIYA INCORPORATED

This Japanese company has been manufacturing plastic kits since 1959, releasing their first armour model two years later. By the early 1970s Tamiya was producing a large range of armoured vehicles and accessories and the company was almost solely responsible for the rise in popularity of 1/35 scale. Like Airfix, the adoption of a constant scale proved popular at a time when many manufacturers were making models to fit the box in which they would eventually be marketed. In 2003 Tamiya began releasing a series of models in 1/48 scale, a size which had largely been forgotten until then, and this line has been extremely successful for the company. At the time of writing Tamiya produces early, mid and late production versions of the Tiger I in 1/35 scale, and early and late production variants in 1/48 scale. Tamiya also offers an impressive 1/16 scale radio-controlled early production Tiger and the 1/35 scale versions have at various times been made as motorised replicas.

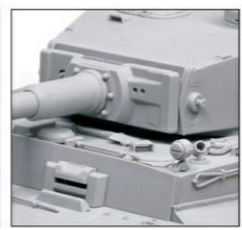
At left: Tamiya's 1/48 scale early production Tiger I built with the photo-etched brass upgrade set fro Czech company Hauler. Below: The 1/16 scale early production Tiger in the markings of schwere Panzer-Abteilung 503. This model is also offered in a motorised version.

DRAGON MODELS

This Hong Kong-based company's models have become a byword for quality and accuracy and the extensive catalogue is probably only matched by Tamiya. Currently Dragon Models offer a large number of Tiger I variants in 1/35 and 1/72 scale including kits of the Bergetiger recovery vehicle. From time to time many of these models are repackaged with bonus items such as photo-etched parts or new sets of markings under the Cyberhobby label. Most of the 1/35 scale offerings have also been released in 1/72 scale, as either construction kits or pre-painted replicas, and the company produces a number of assembled and pre-painted models in 1/144 scale.

Above, left: Dragon Models 1/35 scale early production Tiger I. This kit is a very recent release and can be built as four different tanks including the Tiger shown on the box. This tank is also shown in the Model Showcase section from page 30. Above; The initial production 1/35 scale Tiger model. A number of these tanks could still be seen in the spring and early summer of 1943.

At right: Dragon Models' early production 1/35 scale kit. Below: Details of Dragon's 1/35 scale early production command tank including the later Feifel air filters, commander's cupola with Scherenfernrohr periscope binoculars and the mantlet of the main gun.



ITALERI

Founded in 1962, this Italian company also offers a number of models originally manufactured by ESCI, a company which pioneered the use of link-and-length hard plastic tracks. At present Italeri's catalogue contains Tiger I models depicting early, mid and late production versions and a recently added late war Hybrid model in 1/35 scale. The Tiger Ausf E (Tp) kit (1) first went on sale in 1944 and includes parts that were only fitted to the North Africa Tigers. It was also marketed under the Zvezda logo in 1997. The Tiger Ausf E (2) was released in 2018 with new parts but is based on the 1994 model. It does contain marking options that are relevant for the period covered by this book.

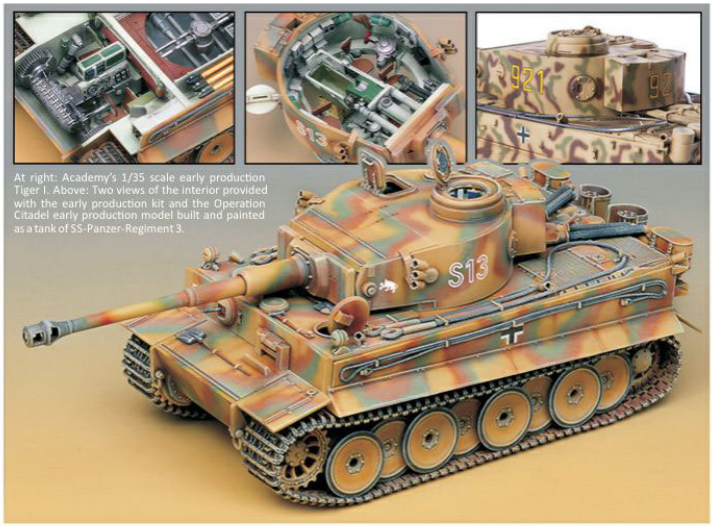
HOBBY FAN/AFV CLUB

Hobby Fan Enterprises is the parent company of AFV Club, both of which are based in Taiwan. Most kits feature non-standard inclusions such as turned metal gun barrels, photo-etched brass parts and water-slide transfers offering numerous schemes. The 1/48 scale late production Tiger I model formally produced by Skybow is now marketed under the AFV Club logo. An example of this model can also be seen in the Model Showcase section from page 27. The company also provides accessories in the shape of both solid plastic and workable tracks for the Tiger I in both 1/35 and 1/48 scale in addition to ammunition, wooden crates and other general items.

At left: The narrow Tiger I transport tracks in 1/35 scale. Below: AFV Club's 1/48 scale early-production Tiger I, formerly marketed by Skybow. The markings of SS-Panzer-Regiment 2 shown here are included in the kit.

ACADEMY PLASTIC MODELS

Based in Korea, this company's Military Miniatures range of 1/35 scale figures and vehicles includes an early, mid and late production Tiger I. The early production model was originally released in 1996 and has since been issued in several different incarnations, sometimes with additional parts, since then. The example shown below is the 1997 version with full interior detailing. Others include kits with upgraded parts and marking options for Tigers that were in service during Operation Citadel and a tank with crew figures dressed in winter uniforms.



At right: Academy's 1/35 scale early production Tiger I. Above: Two views of the interior provided with the early production kit and the Operation Citadel early production model built and painted as a tank of SS-Panzer-Regiment 3.

TRUMPETER/HOBBY BOSS

Relative newcomers to the plastic modelling world, these Chinese companies are in fact owned by the same corporation and share a common address although different models are marketed separately under the two labels. Hobby Boss produces a 1/16 scale mid production Tiger I which is based on the Tamiya kit with some additional parts. Trumpeter's range is made up of a number of 1/72 scale models produced with late or early production features and a recently-released late production 1/35 scale version which of course falls outside the time period covered by this book.

Below: Trumpeter's 1/72 scale Tiger I early production kit. At right: The Trumpeter Tiger I turret upgraded with the highly-detailed spare track set produced by Polish company Atol Hobby. The rudimentary detail is a feature of the company's small scale kits.

RYE FIELD MODELS

A relatively new model company based in Hong Kong, Rye Field Models has released three kits depicting Tiger I variants all in the short space of time between September 2015 and February 2016. The initial production model depicts a Tiger with the modifications seen on the first tanks sent to Tunisia and the mid production version features extensive interior detailing. Contrary to what has been written elsewhere, these are not re-worked or re-issued kits but completely new models.

Above: Rye Field Models' 1/35 scale initial and early production Tiger I kits. Below: The early production Tiger I built straight from the box and two examples of the reinforced gun mantlets that come with the kit. Note that the photo-etched fenders of this kit were only fitted to tanks serving in North Africa.

REVELL AND AIRFIX

Revell's 1/72 scale Pzkpfw VI Ausf H kit was first released in 1997 and since that time it has been re-boxed several times and updated with extra parts, including the cast cupola and steel road wheels to produce the Pzkpfw VI Ausf E version. Note that although the box art of the newer model depicts a vehicle coated with Zimmerit, as most of these tanks were, this is not included with the kit. Although aging, this is a reasonably detailed model and was the first accurate rendition of this important tank in the smaller scales. The recently released 1/35 scale Tiger I early production model is a re-boxing of the Zvezda kit. The Airfix Tiger was first released in 1964 and, although the packaging and box art has changed many times over the intervening years, the kit has remained unaltered. Although a sentimental favourite, as many Airfix kits are, this 1/76 scale model is wildly inaccurate and cannot be compared to the more recent offerings from Dragon, Hasegawa or Revell.

At left: Details of the 1/72 scale Revell Tiger I ausf E kit. Below: Revell's 1/35 scale early production Tiger built and finished in the markings of SS-Panzer-Regiment 2

ZVEZDA

Founded in 1990, this Russian company's catalogue is heavily weighted towards modern Russian and Soviet-era vehicle and aircraft models but does include an early production model Tiger I in 1/35 scale which is a retooling of an older kit first released in 1996. The same version is also offered in 1/72 and 1/100 scale, the latter size being roughly compatible with 15mm wargames figures.

At left: Zvezda's early production 1/72 scale Tiger I model. This version is also produced in 1/100 scale in an almost identical box. Below: The Zvezda 1/35 scale early production Tiger I built with photo-etched brass details from Eduard Model Accessories.

STAR DECALS

Johan Lexell, under the company name of Bison Decals and now Star Decals, has been producing quality water-slide transfers in 1/35, 1/48 and 1/72 scale for armoured vehicles for many years. Although I have not included marking options in many of the books in this series, mainly due to their inaccuracies, the large flat surfaces presented by the early Tigers offer an opportunity for modellers to add an individual touch to their work. In addition, I have collaborated with Johan on a number of his projects and I have seen at first hand how much research goes into each.

Left: Three of the five transfer sets offered by Star Decals specifically for Kursk Tigers. Below: The actual transfers for SS-Panzer-Regiment 1 in mid-1943. All are in 1/35 scale.

.....text continued from page 14

Panzer-Regiment Grossdeutschland. In January 1943 the Panzer battalion of the Grossdeutschland division was upgraded to a full regiment with a second battalion formed from II.Abteilung, Panzer-Regiment 203 and equipped with three medium companies of Pzkpfw III and Pzkpfw IV tanks (1).

Also attached to the second battalion was a newly-raised heavy company made up from elements of 3.Kompanie, Panzer-Regiment 203. Renamed 13.Kompanie, Panzer-Regiment Grossdeutschland, the company arrived in Russia in late February with just nine Tigers, organised into two platoons, although the official allocation called for an additional ten Pzkpfw III tanks. These Tigers were early production models with the access hatch on the turret right-hand side. A further six tanks were received in May and these were all fitted with the loader's periscope and the brackets to hold lengths of spare track on the turret side.

On 1 July 1943, just days before the commencement of Operation Citadel, a third battalion was created and 13.Kompanie was renamed 9.Kompanie, Panzer-Regiment Grossdeutschland with the tenth and eleventh companies of the new III.Abteilung formed from the third companies of schwere-Panzer Abteilung 501 and schwere-Panzer Abteilung 504 respectively (2).

The Tigers of 9.Kompanie took part in Operation Citadel, without the loss of a single tank, and later supported the division in the defensive battles around Karachev, between Bryansk and Orel.

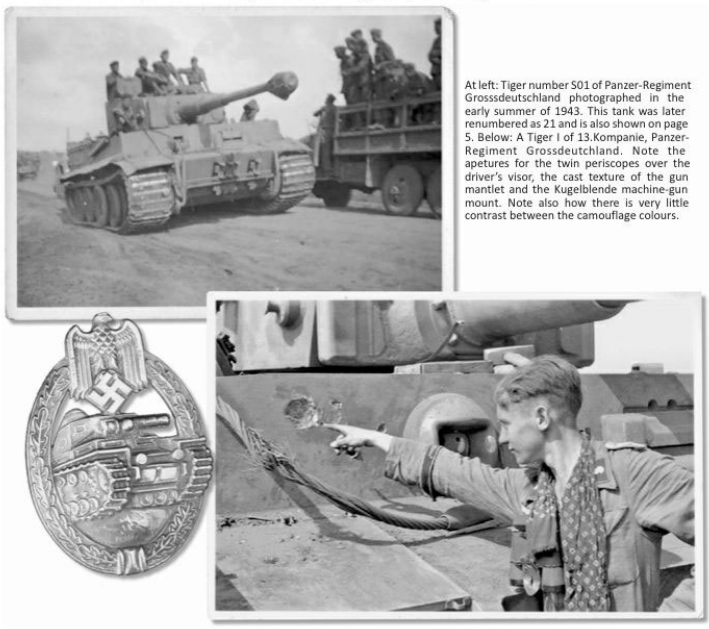
The new companies did not join the battalion until 14 August 1943 by which time 9.Kompanie had just one combat ready Tiger. On the same day four Tigers of 11.Kompanie were lost in a fire, which also accounted for the equipment of the battalion's maintenance section, while they were being transported to the front.

During the remainder of 1943 the battalion was engaged in the fighting east of Bryansk and in the defensive battles around Akhtyrka in present-day Ukraine.

Notes

1. The original tank battalion was renamed I.Abteilung, Panzer-Regiment Grossdeutschland on 3 March 1943 when the second battalion reached the front.

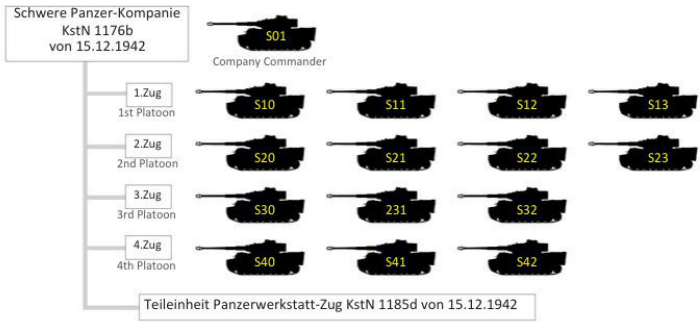
2. The new companies brought twenty-eight tanks with them. All were shipped from the Heereszeugamt in late June and early July 1943. The regiment was allocated a further six Tigers on 19 August 1943 and these were probably used to replenish 9.Kompanie.



At left: Tiger number S01 of Panzer-Regiment Grosssdeutschland photographed in the early summer of 1943. This tank was later renumbered as 21 and is also shown on page 5. Below: A Tiger I of 13.Kompanie, Panzer-Regiment Grossdeutchland. Note the apetures for the twin periscopes over the driver's visor, the cast texture of the gun mantlet and the Kugelblende machine-gun mount. Note also how there is very little contrast between the camouflage colours.

13.KOMPANIE, PANZER-REGIMENT GROSSDEUTSCHLAND, MAY 1943

The creation of a heavy Panzer company for the Grossdeutschland division was authorised on 13 January 1943 using the Kriegsstärkenachweisungen shown here. Note that KstN 1176b dated 15 December 1942, and sometimes referred to as KstN 1176 Ausf B, called for a company equipped with nine Tigers and ten Pzkpfw III tanks. None of the light tanks were ever issued and the company fought the summer battles with the organisation shown here, never fielding more than fifteen tanks. The German term Teileinheit can be roughly translatesd here to mean that this maintenance and recovery platoon was made up of parts of the Werkstatt-Zug described in earlier versions of KstN 1185.



EQUIPMENT ALLOCATIONS AND LOSSES. 13.KOMPANIE, PANZER-REGIMENT GROSSDEUTSCHLAND, 1943

Vehicle Type	Status	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Tiger I	Received		9	0	0	6	0		
	Lost		0	0	0	0	0		
	On Hand		9 (1)	9 (2)	9 (3)	15 (4)	15 (5)		
Pzkpfw III	On Hand								

1. Four Tigers operational. 2. One Tiger operational. 3. All Tigers operational. 4. All Tigers operational. 5. Twelve Tigers operational. On 1 July 1943 the company was absorbed by III.Abteilung, Panzer-Regiment Grossdeutschland and renamed as the battalion's 9.Kompanie.

In the late spring or early summer of 1943, prior to the commencement of Operation Citadel, the turret numbers shown above were over painted and replaced by single or double-digit identifiers as shown in our photograph. This new scheme may have had no connection to the earlier system of markings as numbers such as 6, 7 and 9 were introduced and Tiger S01 is known to have been renumbered as 21. Seen here are Tiger 23, at left, and Tiger 33, the latter identified from another photograph in this series. Note the logs attached to the hull sides and that the smoke dischargers have been removed.

Tiger number 12 of 13.Kompanie, Panzer-Regiment Grossdeutschland photographed during the initial stages of Operation Citadel in early July 1943. The spare track holders and loader's periscope would suggest that this is one of the six new tanks that arrived on 13 May 1943 when the regiment was at Borisovka, west of Belgorod, preparing for the offensive.

This Tiger of 11.Kompanie, Panzer-Regiment Grossdeutschland is one of twenty-eight tanks the regiment's III.Abteilung received in June 1943. Note the holders for spare track links on the turret side and, just visible, the loader's periscope, both introduced in April 1943.

III.ABTEILUNG, PANZER-REGIMENT GROSSDEUTSCHLAND, AUGUST 1943

In early March 1943 the Panzer battalion of the Grossdeutschland Panzergrenadier division was upgraded to a full regiment with a III.Abteilung formed from the third companies of schwere Panzer-Abteilungen 501 and 504 in early July, incorporating the remnants of the division's heavy tank company towards the end of the month. I have not been able to ascertain with any certainty which KstN were used but as schwere Panzer-Abteilungen 502, 503 and 505 were all authorised to be reorganised with three companies according to the instructions shown here at about the same time, the inclusion of KstN 1150e and KstN 1176e would seem to be a reasonable assumption. The nine remaining Tigers of the thirteenth company, which was renamed as the new battalion's 9.Kompanie, may have retained their previous turret numbers, described on page 50, or they may have had no markings at all. By late August 1943, by which time 9.Kompanie had been reinforced, the tanks were numbered in a similar manner to the other two companies with the number beginning with the letter A.

EQUIPMENT ALLOCATIONS AND LOSSES. III.ABTEILUNG, PANZER-REGIMENT GROSSDEUTSCHLAND, 1943

Vehicle Type	Status	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Tiger I	Received						3 (1)	28	9 (2)
	Lost						0	0	5 (3)
	On Hand						3	31	36
Pzkpfw III	On Hand								

1. All three tanks were allocated to the newly-formed battalion staff. 2. These vehicles were the surviving Tigers of 13.Kompanie. 3. Four of these tanks, all from 11.Kompanie, were destroyed in a fire while the battalion was being transported by rail to the front. The remaining casualty was almost certainly the Tiger of Hauptmann Rene von Villebois, the commander of 10.Kompanie, who was severely wounded when his tank was badly damaged on 15 August 1943 and later written off.

SS-Panzer-Regiment 1. In an order dated 15 November 1942, it was directed that a heavy tank company should be created for each of the three Waffen-SS Panzer regiments then serving on the Eastern Front (1).

A fourth company was formed for the first battalion of SS-Panzer-Regiment 1 and the crews were drawn from the regiment's own establishment. The new heavy company received ten Tigers and fifteen Pzkpfw III ausf J tanks, the latter all armed with the 5cm gun, on 21 January 1943. The Tigers were early production models fitted with the Feifel air-filtration system and S-Mine dischargers on the hull. Together with the Tigers of the newly-created heavy companies of the Das Reich and Totenkopf divisions, 4.Kompanie took part in the offensive to recapture Kharkov in February and March 1943.

An order of 22 April 1943 directed that all three Waffen-SS heavy companies that had been formed up to that time were to be upgraded to contain fourteen Tigers each and amalgamated to become a single battalion, referred to as schwere SS-Panzer-Abteilung. The battalion would come under the direct command of I.SS-Panzerkorps which was at that time in the planning stage. In practice the order was never implemented, in most part due to the refusal of the commander of 1.SS-Panzergrenadier-Division to give up any of his men or equipment (2). At some time prior to the commencement of Operation Citadel, exactly when is not known, the heavy Panzer company was transferred to the regiment's II.Abteilung and renamed as 13.Kompanie, SS-Panzer-Regiment 1.

Five Tigers arrived in May 1943 and these tanks were fitted with brackets on the turret sides to hold lengths of spare track. At some time prior to the commencement of Operation Citadel the smoke candle dischargers were removed from the turret although the brackets that held them were usually left in place.

The company took part in the Kursk offensive and although just one tank was lost to enemy action, most were damaged to some degree. In the battles fought around the village of Prokhorovka, where the Russians claim to have destroyed seventy Tigers, as few as four tanks may have been involved in the actual fighting (3).

On 28 July 1943 the complete division was hastily withdrawn from the front and ordered to Italy, handing over nine and eight Tigers to the heavy companies of the Das Reich and Totenkopf divisions respectively.

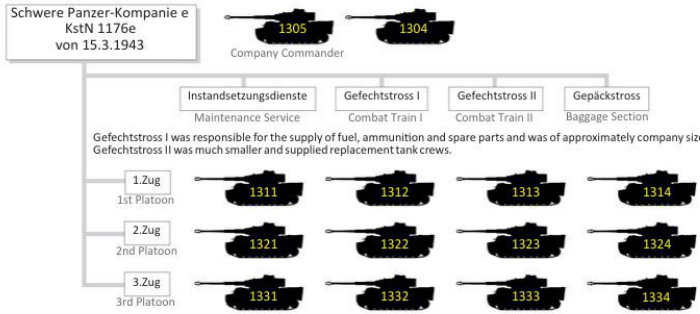
Notes

1. The original plan called for the formation of a full Tiger battalion to support the newly-organised SS-Panzerkorps and, as we shall see, this idea was revisited some time later.
2. The fifteen Tigers allocated to the planned battalion were eventually distributed to the three existing companies.
3. Similarly the Tiger company's claim to have destroyed 163 Soviet tanks should probably be taken with a pinch of salt.

Tiger 1313 of 13.Kompanie, SS-Panzer-Regiment 1 photographed during the Operation Citadel battles. Note the unusual camouflage made up of broad bands of what appears to be Olivgrün on the base coat of Dunkelgelb covered roughly with short strokes of Rotbraun on the hull. The Hakenkreuz flag was often used as an aerial recognition sign but it is unusual to see it flown from a radio antenna. The company lost just one tank completely destroyed during the fighting in July and the vehicle shown here may be one of the seventeen Tigers handed over to SS-Panzer-Regiment 2 and SS-Panzer-Regment 3 at the end of the month.

13.KOMPANIE, SS-PANZER-REGIMENT 1, JULY 1943

On 22 April 1943 the company received orders to reorganise in accordance with KstN 1176e with three platoons of four Tigers each and an additional two tanks for the company headquarters. The company went into action within days and it is not known when the complete reorganisation was achieved but the Pzkpfw III tanks were definitely handed in during the following month. The suggestion that 13.Kompanie took part in Operation Citadel with twenty-two Tigers and five Pzkpfw III light tanks is certainly incorrect and it is difficult to see how these figures could have been arrived at. Some confusion may have been caused by the fact that certain tanks were renumbered during July, for example Tiger 1311 which became tank 1315. The five tanks received on 16 July 1943 may never have been used in combat as the company spent that day in defensive positions along the railway line leading to Prokhorovka and was withdrawn from the front during the evening of the following day.



EQUIPMENT ALLOCATIONS AND LOSSES. 13.KOMPANIE, SS-PANZER-REGIMENT 1, 1943

Vehicle Type	Status	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Tiger I	Received	10	0	0	0	5	1	5 (10)	
	Lost	0	1	1 (4)	0	0	0	19 (11)	
	On Hand	10	9 (2)	8 (5)	8 (7)	13	14	0	
Pzkpfw III	On Hand	15 (1)	10 (3)	3 (6)	0 (8)	0 (9)			

1. All tanks operational. 2. Eight Tigers operational. 3. An approximate figure only, based on the number of combat-ready tanks available. 4. The Tiger commanded by Unterscharführer Jürgen Brandt caught fire and was completely burnt out. 5. Five Tigers operational. 6. Approximate figure only and represents the number of combat-ready tanks. 7. All Tigers operational. 8. Accurate figures for April 1943 are not available. 9. During May the last of the Pzkpfw III tanks were relinquished. 10. These five tanks were received on 16 July 1943 when Operation Citadel was all but over. Within 24 hours the company was ordered to withdraw. 11. Seventeen Tigers were handed over to SS-Panzer-Regiment 2 and SS-Panzer-Regiment 3 and two were lost in combat. On 19 July 1943, the company was absorbed by schwere SS-Panzer-Abteilung 101.

Tiger 1313 of 13.Kompanie, SS-Panzer-Regiment 1 photographed during Operation Citadel. As with most of the company's tanks, the smoke dischargers have been removed although their brackets have been left in place. This tank was renumbered from 411 when the company was renamed and, although it appears to be extensively damaged here, it later served with the company as Tiger 1325.

SS-Panzer-Regiment 2. The regiment's heavy tank company was raised in late November 1942, at the same time as 4.Kompanie, SS-Panzer-Regiment 1, and referred to simply as schwere Panzer-Kompanie, SS-Panzer-Regiment 2.

In December 1942 the company was in training at Fallingbostel and at the Henschel works in Kassel when the crews received the first Tigers. Photographs show that most of these tanks were early production models with the turret escape hatch on the right-hand side, suggesting that they were assembled no later than December 1942. A number lacked the Feifel air-filtration system, indicating that they were assembled prior to November, and these may have been the first tanks received.

A distinctive feature of this company's Tigers was the large stowage bin which had semi-circular pieces cut from each side to accommodate the turret pistol port and escape hatch.

At some time before the unit left for the Eastern Front in late January 1943 it was subordinated to the regiment's II.Abteilung and renamed 8.Kompanie, SS-Panzer-Regiment 2. The company took part in the recapture of Kharkov and in Operation Citadel after which just five Tigers were considered ready for operations, although only one was destroyed. During August 1943 the company fought in the defensive battles along the Mius River, in what is today southern Ukraine, and again around the city of Kharkov which was lost for the last time on 22 August 1943.

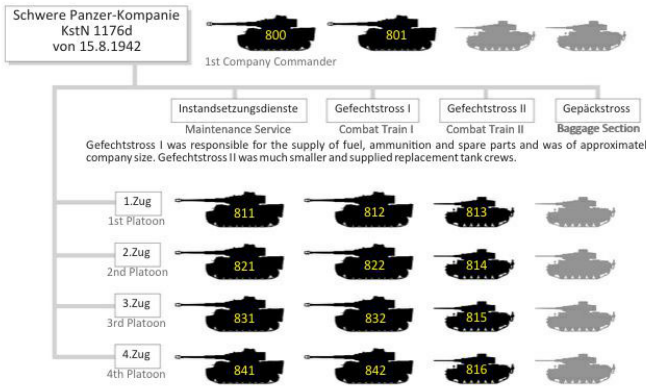
On 19 July 1943, in what may have been a compromise between the 22 April directive and the wishes of the division commanders, an order was issued for the creation of a complete heavy battalion of three companies to be known as schwere SS-Panzer-Abteilung which would be subordinated to I.SS-Panzerkorps. The new battalion trained with as few as three tanks in Germany and was sent to the front where most of the crews were employed as infantry until they were finally returned to Germany in October 1943.

The two companies of the proposed schwere Panzer-Abteilung 101 were ordered to the east in November 1943 where they were consolidated into a single unit and named, once again, as 13.Kompanie, SS-Panzer-Regiment 1.

Tiger S13 of schwere Panzer-Kompanie, SS-Panzer-Regiment 2 photographed during Operation Citadel with who may be Unterscharführer Franz Kraml in the commander's cupola. Note that the smoke candle discharger has been cut away, flush with the turret roof and also leaving a small stub in front of the side vision slot. Note the Springender Teufel, or jumping devil, insignia on the turret side. This is examined further in the Camouflage & Markings section on page 25. This tank survived the Kursk battles and was photographed in late October between Kirivograd and Zhitomir.

8.KOMPANIE, SS-PANZER-REGIMENT 2, JANUARY 1943

Formed in November 1942 as a heavy tank company for the newly-created SS-Panzer-Regiment 2, this unit was organised in accordance with KstN 1176d of 15 August 1942 with nine Tigers and ten Pzkpfw III tanks. On 17 February 1943, the company received an additional Tiger bringing the total to ten. This extra Tiger was not the only organisational anomaly and the tanks shown in a lighter shade represent those authorised by KstN 1176d but never received.

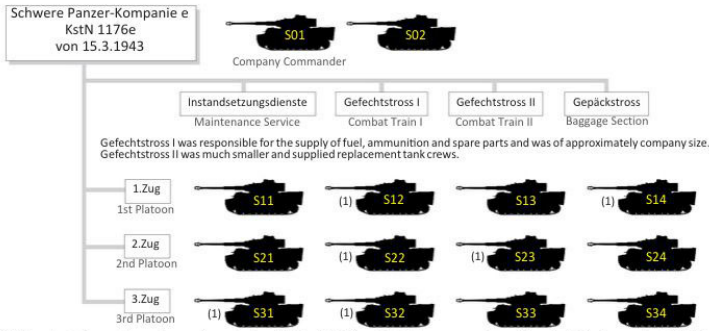


At some time prior to 24 April 1943, and the visit of Reichsführer-SS Himmler to the company, the Tigers were renumbered as follows: 800 to 801, 801 to 802, 811 to 831, 812 to 833, 821 to 813, 822 to 811, 831 was destroyed and not replaced until May, 832 to 823, 841 to 821 and 842 which was destroyed and not replaced until May. The numbers were changed once again in late May 1943, when six new Tigers were received, and this is explained in the diagram on page 57. The style and colours of the turret numbers are discussed in the Camouflage & Markings section.

Tiger 812 photographed in April 1943 with part of the tank's crew and, third from the right, the company commander Hauptsturmführer Herbert Zimmermann and next to him Hauptsturmführer Karl-Heinz Lorenz. A scale replica of this tank, nicknamed Tiki, is also shown in the Model Showcase section.

SCHWERE PANZER-KOMPANIE, SS-PANZER-REGIMENT 2, JULY 1943

On 20 May 1943, after being reinforced with six new Tigers, the company relinquished the last of its Pzkpfw III tanks and was reorganised in accordance with KstN 1176e of 15 March 1943. The tanks were renumbered as shown below with each platoon receiving two of the new tanks. In late July 1943, after the Operation Citadel battles, nine Tigers were handed over from 13.Kompanie, SS-Panzer-Regiment 1 and this necessitated some degree of renumbering although the same system was maintained.



1. These six tanks were the replacements received on 13 May 1943. The older tanks were renumbered from the 800 series, used until 20 May 1943, as follows: S01 was 801, S02 was 802, S11 was 813, S13 was 811, S21 was probably 821, S24 was 823, S33 was 831 and S34 was 833.

EQUIPMENT ALLOCATIONS AND LOSSES. 8.KOMPANIE, SS-PANZER-REGIMENT 2, 1943

Vehicle Type	Status	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Tiger I	Received	8	1	0	0	6	0	9 (11)	0
	Lost	0	1 (2)	2	0	0	0	1	3
	On Hand	10	10 (3)	8 (5)	8 (7)	14 (9)	14 (10)	22 (12)	19 (13)
Pzkpfw III	On Hand	12 (1)	0 (4)	7 (6)	7 (8)				

1. All Pzkpfw III ausf J models. 2. The Tiger of Obersturmführer Hans Gerlach, a platoon commander, was capture largely intact after it was disabled by a mine. 3. As few as three Tigers operational. 4. All the combat-ready tanks were seconded to the division's Panzer-Regiment. 5. None of the company's tanks were operational. Hauptsturmführer Friedrich Herzig, the acting commander, was relieved of his post and transferred to a training establishment in Germany. 6. Approximate figure only. 7. Six Tigers operational. 8. Approximate figure only. In the following month all the surviving Pzkpfw III tanks were handed in. 9. Eight Tigers operational. 10. Twelve Tigers operational. 11. From 13 Kompanie, SS-Panzer-Regiment 1. 12. Three Tigers operational. 13. Two Tigers operational.

Photographed shortly before receiving its company number of S32 this Tiger is one of the replacement vehicles received on 13 May 1943. Note the early style Feifel air filters, replaced in production in March 1943, and the starter alignment plate which was in use prior to the introduction of the HL 230 P45 engine. Note also that this vehicle is fitted with the spare track holders on the turret sides and was probably the only tank in the company to have them during the summer battles. This Tiger was renumbered, probably as S25, when the tank depicted as S32 on page 25 of the Camouflage & Markings section was received from SS-Panzer-Regiment 1.

SS-Panzer-Regiment 3. The heavy tank company of the Totenkopf division was raised at the same time as the Tiger companies of the other Waffen-SS formations. The tank crews were taken from SS-Panzer-Regiment 3 and also the training and replacement units of SS-Panzer-Regiment 1 and SS-Panzer-Regiment 2.

The first Tigers were received during January 1943 and by 10 February the company was ordered to the Russian Front. The company had nine Tigers at this time and it appears that they were all early production models without the Feifel air filters indicating that they were assembled before November 1942.

The Tigers went into action for the first time on 21 February 1943 near Pavlograd, east of present-day Dnipro in eastern Ukraine, attacking through an intense snowstorm. The company supported operations by the LSSAH and Das Reich divisions until 17 March when it was reunited with its parent formation.

On 9 May 1943 the Tiger company was transferred to the second battalion of SS-Panzer-Regiment 3 and renamed 9.Kompanie. On the following day the tanks received their new turret numbers and by 14 May the last of the Pzkpfw III tanks had been transferred to the regiment's other companies. On 20 May 1943, six Tigers were handed over from schwere SS-Panzer-Abteilung, which was being formed in Germany, bringing the company's total to fifteen.

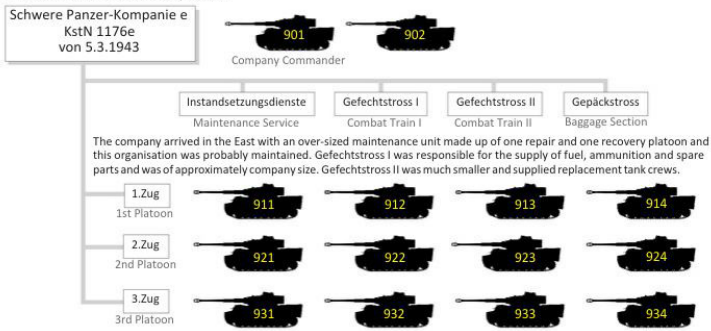
The Tigers took part in Operation Citadel, including the battle at Prokhorovka where the company made the furthest advance into enemy territory. During this time the company lost a single Tiger, tank number 912, on 7 July 1943 when it suffered a direct hit by a Russian artillery shell. The company later fought in the attempts to defend Kharkov and on 29 July 1943 was reinforced by eight Tigers from SS-Panzer-Regiment 1.

During August the Tigers were involved in the defence of the Mius River line, on several occasions supporting the tanks of the Grossdeutschland division, losing one of just three serviceable vehicles on the last day of the month when the tank of Unterscharführer Artur Privatzki received a direct hit. Unlike the other Waffen-SS formations, which gave up their Tiger companies, the panzer regiment of the Totenkopf division retained its Tigers, fighting on the Eastern Front until the last operational tanks were destroyed by their own crews on 8 May 1945, the final day of the war.

Tiger 932 of 9.Kompanie, SS-Panzer-Regiment 3, possibly photographed in the early autumn of 1943. This vehicle was one of the six 4.Kompanie Tigers which were issued in January 1943 and were still on hand when the regiment's heavy company was renamed in late April.

9.KOMPANIE, SS-PANZER-REGIMENT 3, JULY 1943

Formed in November 1942, in accordance with KstN 1176d, the last vehicles arrived in Russia in February 1943 and were assigned to SS-Panzer-Regiment 3 as the fourth company and assigned turret numbers in the 400 series. On 22 April 1943 the company was transferred to the regiment's II.Abteilung and renamed 9.Kompanie. On the same day the company was ordered to be reorganised using KstN 1176e of 5 March 1943, as shown below, with fourteen Tigers but it was a full two weeks before the last of the Pzkpfw III tanks were relinquished. On 10 May 1943 the tanks were renumbered in the 900 series. For a short time the company contained a fourth platoon but this was soon disbanded and the tanks were distributed to the other platoons.



The company arrived in the East with an over-sized maintenance unit made up of one repair and one recovery platoon and this organisation was probably maintained. Gefechtstross I was responsible for the supply of fuel, ammunition and spare parts and was of approximately company size. Gefechtstross II was much smaller and supplied replacement tank crews.

EQUIPMENT ALLOCATIONS AND LOSSES. 9.KOMPANIE, SS-PANZER-REGIMENT 3, 1943

Vehicle Type	Status	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Tiger I	Received	9	0	0	0	9	0	8 (7)	0
	Lost	0	1 (1)	2	0	0	0	3 (8)	1 (10)
	On Hand	9	8	6 (3)	6 (4)	15 (5)	15 (6)	20 (9)	19 (11)
Pzkpfw III	On Hand	10	9 (2)						

1. Turned in for depot-level maintenance and presumably never returned. 2. I have been unable to find any definitive information on the number of Pzkpfw III tanks on hand during March and April 1943 and the last were handed over to the regiment's 3.Kompanie in May. 3. Two Tigers operational. 4. Four Tigers operational. 5. The last of the company's Pzkpfw III tanks were relinquished at this time. 6. Eleven Tigers operational. 7. All eight tanks from 13.Kompanie, SS-Panzer-Regiment 1. 8. Just one tank was destroyed during Operation Citadel, Tiger 912 commanded by Unterscharführer Richard Muller. The remaining two were lost on the last day of the month in the battles along the Mius River. 9. Only one Tiger operational. 10. Sources differ here, with some giving a figure of two. It is entirely possible that both are correct as two Tigers were disabled in the fighting and later demolished and one of the tanks may have been recorded in the September return. 11. Only a single Tiger operational.

A Tiger of 9.Kompanie, SS-Panzer-Regiment 3 photographed during Operation Citadel. Note the unit insignia made up of three vertical bars, painted in black, to the left of the hull machine gun. This tank has the twin apertures for the KFF 2 driver's periscope which was dropped from production in February 1943. Other photographs in this series clearly show the turret number 913.

Tiger 902 of 9.Kompanie, SS-Panzer-Regiment 3 photographed during the first days of Operation Citadel or just prior to the beginning of the offensive. The tank's commander, Untersturmführer Walter Köhler, assumed command of the company on 8 July 1943 on the death of Obersturmführer Schröder and was killed just four days later. Note the temporary unit insignia on the hull front below the radio operator's position.

The first production models of the Tiger tank were referred to as Panzerkampfwagen VI H, with the official ordnance designation of Sonderkraftfahrzeug (SdKfz) 182, and the title Tiger I is not encountered in official documentation until October 1942. The new name may have been introduced to differentiate the tank from the Tiger II project which was at that time in the early planning stages. A personal order from Hitler, dated 27 February 1943, directed that the tank should henceforth be referred to as the Panzerkampfwagen Tiger ausf E SdKfz 181 and this designation was used until the end of the war. In Kriegsstärkenachweisung (KStN) 1176e, the organisational chart issued by Oberkommando des Heeres (OKH) on 5 March 1943 and mentioned throughout this book, the tank is referred to as Pz.Kpfw. Tiger (8,8 cm L/56) (Sd.Kfz. 181).

In production the fully-assembled chassis, made up of a Panzerwanne or armoured hull and the wheels, were identified by a unique number referred to as a Fahrgestellnummer (Fgst) and the Tiger I series started from 250001. The turrets were manufactured at Kassel by Wegmann & Co., and transported to the massive Henschel und Sohn plant, just over a kilometre away, where the final assembly took place. Each turret was also identified by an individual number, here referred to as a Turm Nr, and these began at 1. The Tiger I engines were produced by Maybach of Friedrichshafen and the main guns, the famous 8.8cm KwK 36 L/56, were assembled by Dortmund Hoerder Hüttenverein and R. Wolf AG at their Magdeberg-Buchau factory. Many smaller firms were involved in the manufacture of other components, such as Ernst Leitz G.m.b.H which produced the sights for the main gun.

The modifications listed on the following pages by date were carried out during production and do not, for the most part, include the additions and ad-hoc solutions made by units in the field. Many of these are shown and discussed in the Camouflage & Markings section. In addition, the many technical details of the prototypes fall outside the time frame of this study and are also not included.

Although the terms early, mid and late production are modern inventions, they are used almost universally by researchers and modellers alike and I have employed them throughout this book. Further technical information can also be found in the first book in the TankCraft series Tiger I and Tiger II Tanks: German Army and Waffen-SS. Eastern Front 1944and also Tiger I: German Heavy Tank. Southern Front North Africa, Sicily and Italy 1942-1945, the tenth book in the series.

August 1942. The driver's twin periscope was dropped from production and the two holes drilled in the hull glacis were welded shut. A hinged flap was installed on the top of each muffler to keep out water during submerged fording and retaining hooks were added to the engine louvres. With some exceptions the small Pzkpfw III stowage bins were replaced by a new, larger bin. Fasteners were welded to the rear deck to hold five gun-cleaning rods and two wrecking bars. A storage tube for a spare antenna was mounted along the outside edge of the hull at the right rear. Holes were cut into the glacis plate at each corner to accommodate a canvas cover intended to disguise the tank as a truck. It is not known if these were ever used.

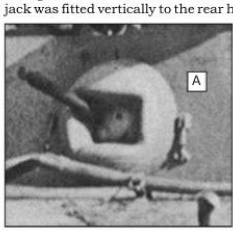
September 1942. The two toggle bolts on the machine-gun mount (A) were no longer installed. From Fgst Nr.250011 fasteners were installed on the left hull side to hold the track replacement cable. Fasteners were also added to hold a hammer, spade, axe, wooden jack block, wire cutters, a wrecking bar, two towing cables and a fire extinguisher on the rear deck. A 15-ton jack was fitted vertically to the rear hull.

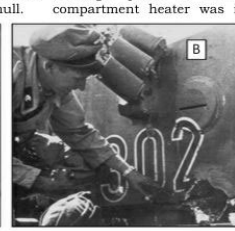
October 1942. Three smoke candle dischargers, Nebelwurfgerät, were fitted to each side of the turret towards the front (B). Mounting plates for the Fiefel air filters were incorporated into production (1). Beginning with Fgst Nr.250021, standardised Kgs 63/725/130 cross-country tracks were fitted to both sides (2). The rectangular convoy light was replaced by a cylindrical model and the antenna base on hull rear was removed. The position of the towing cables on the deck was reversed and the 15-ton jack was mounted horizontally. A large shovel was fastened to the glacis (C).

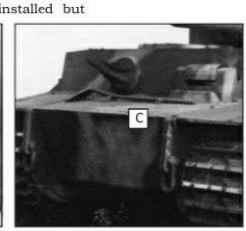
November 1942. Sheet metal mudguards, sometimes referred to as track guards, were fitted to the hull sides and hinged fenders were added at the front. The track guards consisted of four sections, mounted in pairs, at an angle, so as to create a slight dip in the middle join. Initially each section was constructed by welding a thin upper retaining strip to a lower guard strip but from some time after Fgst Nr.250028 they were fabricated from a single piece of metal. A crew compartment heater was installed but

Notes

1. The filters themselves were not fitted until November.
2. The first twenty Tigers were fitted with left and right cross-country tracks.







Below: An early production Tiger I assembled in February 1942. This tank features the early drive sprocket which was dropped from production in April 1943, the dischargers for the smoke candles or Nebelwurfgeräte on the turret side introduced from October 1942, hinged fenders at front and rear and the straight sided track guards. This vehicle would also have been fitted with the brackets for S-Mine dischargers although the dischargers themselves were not yet available. Note the Feifel air-filtration system which was introduced into production from October 1942 and the over-sized stowage bin, or Gepächkasten, held here with a single metal beam on each side.

Notes

1. It is believed that the shape of the first production hatches conformed to the curvature of the turret sides, however, by July 1943 a flat disc shape was in use.
2. The topic of factory-applied camouflage, and the colours and methods employed by the German Army, are dealt with in some detail in Tiger I: German Heavy Tank Southern Front North Africa, Sicily and Italy 1942-1945 and also Tiger I & Tiger II Tanks: German Army and Waffen-SS. The Last Battles in the West 1945.

units operating in southern Russia removed them to avoid causing engine fires. A number of tanks were built with reinforced main gun mantlets.

December 1942. The sheet metal track guards were fitted in a straight line whereas previously they had followed the curve of the lower edge of the hull side. An escape hatch (A) was fitted to the right rear turret side in place of the pistol port (1).

From Fgst Nr.250055 the hull sides were extended at the front. A stowage box for the track tools was fitted to the hull rear. Mounts for five S-Mine dischargers were fixed to the hull roof (B), although the dischargers themselves were not available until January, and the antenna stowage tube was moved to accommodate the S-Mine mount. From Fgst Nr.250053, reinforcing rings were added to the holes for the canvas camouflage cover.

January 1943. Ninety Tigers were assembled with gun mantlets built without the reinforcement mentioned earlier. A sheet metal guard or deflector was fitted to the open sides of the mufflers to conceal the distinctive glow given off by the exhausts. Beginning with Fgst Nr.250082 five S-Mine dischargers were fitted on the hull roof with one at each corner and one mounted halfway along the left side. The fifth discharger was not fitted to the Panzerbefehlswagen variant.

In late January or early February new turret stowage bins, or Gepächkasten, replaced the Pzkpfw III bins (C) which had been fitted to some vehicles from August 1942. Variations on the turret Gepächkasten, including the distinctive design seen on some Tigers of schwere Panzer-Abteilung 503, are discussed further in the Camouflage & Markings section. From Fgst Nr.250085 triangular metal supports were added to ends of the side track guards.

February 1943. From Fgst Nr.250122 the number of gun cleaning rods was increased to six. The 18-bolt roadwheels were incorporated into production. Orders were issued stipulating that the tanks would henceforth be painted in a base colour initially referred to as Dunkelgelb nach Muster and later as RAL 7028 Dunkelgelb (2).

March 1943. A fixed loader's periscope, protected by an armoured cover, was installed on the turret roof beginning with Turm Nr.184. Modified Feifel air filters were introduced and the cap over the ventilation riser on the rear deck was replaced by a triangular-shaped opening covered by a flat plate held in place by three bolts.

April 1943. From Fgst Nr.251205 the hub of the drive sprocket was machined flat to allow the bolts with their reinforced tabs to be better secured. The same cast louvre section on the hull rear deck is used for both sides. Beginning in mid-April three spare track links were mounted on the

turret right side between the vision port and the escape hatch and five spare track links on the left side between the vision slit and the pistol port. In late April the links on the right side were reduced to two (A). Interestingly, it was initially planned to fix fifteen spare links around the hull sides but the introduction of the stowage bin meant this was no longer possible (1).

May 1943. A second hole in the alignment plate on the hull rear was introduced with the Maybach HL 230 P45 engine (B).

June 1943. Beginning with Turm Nr.286 the smoke candle dischargers, or Nebelwurfgeräte, were deleted.

July 1943. From Turm Nr.391, mounted on Fgst Nr.250391, a redesigned turret was introduced. The commander's cupola was now made from a cast armoured ring fitted with seven periscopes, each with an armoured cover, and a hatch with a pivoting arm (C). On the first few cupolas, perhaps as many as thirty, the hatch swung towards the front and was later redesigned to open towards the rear. A partial ring, welded to the tops of the periscope guards, acted as a track for the anti-aircraft machine-gun mount. A new loader's periscope was installed with a wider armoured cover and the loader's hatch was given a modified lock which could be adjusted from the outside. The exhaust fan on the turret roof was provided with a new armoured guard and moved from the rear of the turret roof to a position in front of the cupola directly above the gun breech. The large pistol port on the left turret rear was replaced by a simple plug. The fasteners for the track replacement cable were moved to new positions along the hull left side and a single headlight was placed at the top left corner of the hull front replacing the two headlights mounted at each corner.

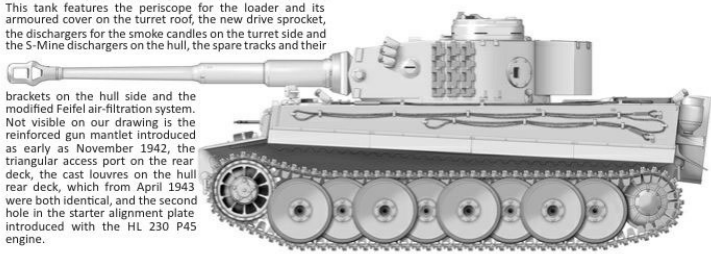
August 1943. To simplify production all deep wading components were dropped. The vision slits on the turret sides were redesigned with a wider slit allowing for better all-round vision and with a lower profile. Beginning with Fgst Nr.250461 redesigned fasteners to hold the track replacement cable were welded to the hull side. A thick paste commercially known as Zimmerite, usually referred to today as Zimmerit, was applied to all vertical surfaces that could be reached by a man of average height. Ridges were worked into the paste, the intention being to prevent magnetic mines gaining a hold. There is some debate about the date of introduction with July and September also being given.

The reader should note that the modifications listed for August, and many of those included for July, would not have been seen on Tigers operating in Russia during the summer battles and are included here as a matter of interest only.

Notes

1. Some tanks were fitted with as many as five sets of brackets on each side.

Below: An early production Tiger I completed in May 1943. This tank features the periscope for the loader and its armoured cover on the turret roof, the new drive sprocket, the dischargers for the smoke candles on the turret side and the S-Mine dischargers on the hull, the spare tracks and their brackets on the hull side and the modified Feifel air-filtration system. Not visible on our drawing is the reinforced gun mantlet introduced as early as November 1942, the triangular access port on the rear deck, the cast louvres on the hull rear deck, which from April 1943 were both identical, and the second hole in the starter alignment plate introduced with the HL 230 P45 engine.



Dragon Models Ltd
B1-10/F., 603-609 Castle Peak Rd.
Kong Nam Industrial Building,
Tsuen Wan, N. T., Hong Kong.
www.dragon-models.com

Tamiya Inc
Shizuoka City, Japan
www.tamiya.com

Trumpeter/Hobby Boss
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ZhongShan,GuangDong, China
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www.academy.co.kr

Royal Model
Via E. Montale, 19-95030 Pedara, Italy
www.royalmodel.com

Italeri S.p.A.
via Pradazzo 6/b,
40012 Calderara di Reno, Bologna, Italy
www.italeri.com

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Letecká 549, Libèice nad Vltavou,
252 66, Czech Republic
Www.blackdog.cz

Hauler
Jan Sobotka,
Moravská 38, 620 00 Brno,
Czech Republic
www.hauler.cz

Voyager
Room 501, No.411 4th Village,
SPC Jinshan District, Shanghai 200540,
P.R.China
www.voyagermodel.com

Griffon Model
Suite 501, Bldg 01, 418 Middle Longpan Rd,
Nanjing, P.R. China
www.griffonmodel.com

Aber
ul. Jalowcowa 15, 40-750 Katowice, Poland
www.aber.net.pl

E.T. Model
www.etmodeller.com

Friulmodel
H 8142. Urhida, Nefelejcs u. 2., Hungary
www.friulmodel.hu

Modelkasten
Chiyoda-ku Kanda, Nishiki-Cho 1-7, Tokyo,
Japan
www.modelkasten.com
Very difficult to navigate but worthwhile.

Airfix
www.airfix.com

Revell
www.revell.com

Eduard Model Accessories
Mlrova 170, 435 21 Obrnice,
Czech Republic
www.eduard.com

Master Club
www.masterclub.ru
It appears that this firm is closely associated with Armour35, a Russsian mail-order firm.

RB Model
Powstancow Wlkp.29B,
64-360 Zbaszyn,
Poland
Www.rbmodel.com

Model Artisan Mori
Yasutsugu Mori,
Maison Suiryu 302, Kunoshiro-cho 1-10,
Yokkaichi-City, Mie 510-0072, Japan
Www.artisanmori.web.fc2.com

Passion Models
www.passionmodels.jp

Kaizen
Available from Hobby Link Japan
www.hlj.com

Raupen Model
Www.raupen-modell.com

ROCHM Model
www.rochmmodel.com
Rochmmodel@gmail.com
This company has a huge selection of parts and accessories for 1/35 scale Tiger models including sets to build specific vehicles.

In researching this project I consulted a number of works but no book on the Tiger tanks could be written without reference to the Germany's Tiger Tanks volumes by the late Thomas L. Jentz and Hilary L. Doyle and Thomas Jentz'sPanzertruppen books which I would recommend to any reader with an interest in German armour of the Second World War period. In compiling the unit histories I drew heavily on the works of Oberst Wolfgang Schneider. I would also like to make special mention of Hartmut von Holdt of Tiger im Focus and his many collaborators including David Byrden, Ron Hetherington, Chris Brown, Mario Lippert and a host of others. I should also mention the contributors to the Axis History and the Feldgrau forums, especially Martin Block and the late Ron Klages. I would like to thank the modellers who very generously allowed me to publish the images of their work and of the product manufacturers I must make special mention of Roberto Reale of Royal Model, Sheng Hui of ROCHM, Jan Zdiarsky from Eduard Accessories and Freddie Leung of Dragon Models who all helped enormously. As always, I am indebted to Karl Berne, Valeri Polokov and J.Howard Parker for their invaluable assistance with the photographs and period insignia.

Tiger number 233 of 2.Kompanie, schwere Panzer-Abteilung 503 photographed during the early stages of Operation Citadel in July 1943. The company was attached to 19.Panzer-Division for the offensive and on the first day ran into a minefield near Michalowka, south-east of Belgorod, where every tank was damaged. This tank is fitted with the later style Feifel air filters introduced in March 1943 but does not have the spare tracks on the turret side and their brackets incorporated into production in mid-April.